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ABSTRACT

The question of whether the social composition of postsecondary education in Australia has changed since the 1930s and 1940s is analyzed. Based on a review of studies of higher education students in Australia, it is proposed that concern for equity in access to education developed during the 1960s and has continued until the present. Attention is directed to enrollment trends for the universities, College of Advanced Education, and technical and further education. Additional topics include: the age distribution of students, enrollment influences and trends for women students, the effects of social conditions on enrollment, college participation by public and private school students, the effect of place of residence on college attendance, the effects of local tertiary institutions on participation, interstate and interinstitutional variations on enrollment, educational aspirations of migrant students, the national background of students, aborigines and the irrelevance of education, the socioeconomic background of students, type and level of study, and social background of technical and further education students. It is concluded that although these colleges are represented by students from many different backgrounds, access to higher education is mainly limited to the privileged. (SW)

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Access to Privilege: Patterns of Participation in Australian Post-Secondary Education

D.S. Anderson
and
A.E. Vervoorn

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Preface

For the Reader Unfamiliar with the Australian Education System

Of the 14.8 million people who inhabit Australia three million are full-time school students and almost another million are enrolled in courses of post-secondary education, mostly part-time. The following chapters describe these post-secondary students in terms of their social, regional and ethnic origins, and the way they are distributed across and within universities, colleges of advanced education and colleges of technical and further education.

Australia is a federation of six former crown colonies—the states of New South Wales, Victoria, Tasmania, Queensland, South Australia and Western Australia plus the Australian Capital Territory and the Northern Territory. In the federal constitution education is a responsibility left to the states. In the years during and following World War II, however, the Commonwealth Government assumed powers of income taxation which made it by far the largest collector and distributor of revenue. This, along with a strong commitment to university education by the Commonwealth, led to agreements whereby funding of higher education was shared with the states, and later on fully provided by the Commonwealth Government. The crucial year of 1974 saw the abolition of tuition fees and the assumption of full funding from Canberra—universities and colleges which had received their income from three pockets were now funded from one. In the delirium induced by promises of increased resources most academics of the time failed to appreciate the implications which these moves would have for their greatly cherished institutional autonomy, and even for academic freedom.

Australian post-secondary (or tertiary) education is, like ancient Gaul, in three parts, which are called technical and further education (TAFE), colleges of advanced education (CAEs) and universities; the last two are collectively known as higher education.

TAFE has a long history in Australia going back well into the nineteenth century (Murray-Smith, 1971). TAFE remains a state-funded and administered enterprise linked closely to government through state education departments or in some states separate departments of technical education. Since 1973 the Commonwealth Government has developed a commitment to TAFE and presently provides state governments with 'topping-up' grants amounting to about 25 per cent of total costs, the greater part being for capital. TAFE embraces technical and trade training including apprenticeships, vocational certificates, an alternative route to the Higher School Certificate (secondary year 12) for students who have left school, and a vast range of 'hobby' courses. Even without the last category the number of enrolments in TAFE is 690,000, double that in higher education, although most are part-time.

Colleges of advanced education were established in the 1960s in order to provide education and training of an equal intellectual standard to university but of a more applied and directly vocational nature. The system comprised some new institutions created in that period of expansion, several high level technological institutions of long standing and, by 1974, all former state education department teachers colleges. At last count there were about seventy CAEs, the uncertainty being due to procrastination by some of the thirty colleges which have been directed by the Commonwealth Government to form amalgamations or lose their income. CAEs exist under Acts of State Parliament and are co-ordinated by state statutory authorities. One of the features which distinguishes them from universities is the requirement that there be external approval of new courses and the accreditation of standards in all courses. Colleges award diplomas and degrees, generally for three years full-time, or equivalent part-time, courses. They overlap with universities in many professional areas, for example, teaching, engineering, architecture, management and some commercial studies. Colleges have tended to be more innovative than universities in developing new courses; those colleges with courses of teacher education, however, have had the greatest difficulty in adapting to the recent and drastic downturn in the demand for school teachers. The numbers of students in colleges more than doubled during the 1970s and throughout the 1970s the gap between college and university enrolments was narrowed. About half the students in colleges are studying their courses part-time. Post-graduate research training is not extensive and research programs are expected to be of an applied nature.

All but one of Australia's nineteen universities are established under an Act of a State Parliament, the exception being the Australian National University founded in 1946 by the Commonwealth Government initially as a non-teaching research institution. Although in some states universities are nominally subject to state level co-ordination, all enjoy virtual institutional autonomy. As well as providing professional courses (of 4-6 years duration) in fields such as engineering, law, medicine, teaching, agricultural science, universities offer 3-year pass courses in arts and science and 4-year honours courses. They also, of course, have a large program of graduate studies and extensive involvement in both basic and applied research. In 1980 there were some 163,000 students; 31 per cent of them were studying part-time on-campus courses and 9 per cent were studying externally.

Co-ordination at a federal level is effected by the Commonwealth Tertiary Education Commission, a statutory authority which advises the government on funding and broad developments in post-secondary education. The commission is supported by three councils, one for each of the three sectors, which provide and publish advice but which cannot override the commission. Traditionally the commission has acted as a buffer between government and institutions, particularly universities. This is still the case although there are now strains following the end of a 30-year period of expansion. For example, in 1981 the Federal Government has, for the first time, intervened into the affairs of a state university by directing that a particular engineering school be closed—a reasonable decision in itself but the manner in which it was arrived at sent shock waves through the system.

Financial assistance to students has always been a matter for government. Eight years ago the Federal Labor Government's decision to abolish tuition fees for universities and colleges of advanced education was an attempt to democratise higher education. The following is an account of what research has to say about the effect of this and other social influences on who gets higher education.

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D.S.A.
A.E.V.

1 Introduction: Perspectives and the Major Research Studies

Aims and Angles

In the last forty years or so, any request to an Australian to describe a typical university student would most likely have prompted a response something along these lines:

He's the son of a doctor, lawyer, or someone else with a house in Saint Ives or Kew. Because his parents wanted him to have the best education money could buy they sent him to a private school, to study academic subjects and learn the importance of not getting his hands dirty. He went direct from school to college, avoiding the real world en route except for glimpses through the windscreen of the sports car his parents bought him. After a few years he too becomes a doctor or lawyer, and so begins to accumulate the money necessary to build a house larger than his father's and to send his children to university.

A request for a description of a college student might have led to a similar result. Of course it is a grotesque caricature, and yet... However tenuous its relation to reality, a relation nevertheless exists with enough substance to it to make us stop to think about the functions of higher education in our society, about what higher education has done and what it can or should do.

Graduation from higher education has been and remains a sought-after prize. It opens the door to the prestigious professions, social status, economic security and positions of leadership. Even in current conditions where graduates in some fields cannot always obtain employment commensurate with their skills and expectations, their rate of unemployment is much less than for non-graduates and the rewards remain high.

In this book we review and synthesise evidence derived from government statistics and the findings of all the studies we have been able to locate of the social background of Australian post-secondary students in an attempt to answer the following questions:

In what ways has the post-secondary student population in Australia been unrepresentative of the general population; which social groups have participated more than their numbers alone would lead us to expect, and which less?

Is there any evidence of change over time in the patterns of participation in post-secondary education for various social groups; if so, in what direction has change occurred?

Post-secondary education includes not only the higher education spheres of universities and colleges of advanced education—which are the subject of most of the discussion in these chapters—but also technical and further education, which caters primarily for

students working at a level below what is conventionally called tertiary education. The social background of technical and further education students has rarely been examined and little information concerning it is available. For this reason, and because of the fundamental differences between technical and further education on the one hand and university and college education on the other, the background of technical and further education students is discussed more or less independently in a separate chapter.

At the risk of destroying the reader's sense of dramatic anticipation, the general answer to our questions can be stated here. The findings of the many studies discussed in the following pages build up a picture of the social background of contemporary Australian higher education students which contains some discomfiting similarities to the caricature above, and which, moreover, has an apparent timelessness that is even more discomfiting. True, there are many female students, working class students, students who have attended public or Catholic schools, students from ethnic minorities and mature age students, but in almost all cases they are under-represented in relation to their numbers in the general population, while those who have some of the characteristics of our caricature are over-represented—and remain over-represented, despite all the massive changes which have occurred in Australian society since 1945.

The mushrooming growth of higher education has had little effect on the social composition of the student body; by and large patterns of participation in higher education in Australia today reveal the same social inequalities as those prevalent in the pre-war years and throughout the history of higher education. Where change has occurred—as in participation by women, for example—it is because social attitudes have changed rather than because of deliberate action by universities and colleges.

The issue of educational equality remains just as problematic as ever, no matter how we interpret that complex and rather punch-drunk concept. Despite all the social idealism attached to education, especially in the last decade, the hope that education would lead us to the threshold of a just society in which inequalities due to personal background and circumstance have been eliminated, higher education remains as much as ever the domain of those in least need of the greater personal opportunity and self-realisation it commonly brings.

Viewed from a sociological perspective, the education system as a whole, and the secondary and post-secondary levels in particular, act as a series of filters allocating students to the various strata of the social structure and the workforce. Thus, at the present time, of every 100 students who start school only about 36 remain to year 12. Half of these then move on to higher education, with about one-third failing to graduate. This leaves approximately 12 out of the original 100 to enter the professions—a figure roughly corresponding to the proportion of the workforce in graduate-entry occupations. The sociologist is interested in the structures and processes which are behind this social sifting; the policy-maker wants to know how things can be changed so as to obtain desired objectives. In the final chapter we will discuss the connections between research and policy. In the intervening chapters the evidence is reviewed.

The authors of a number of the studies reviewed in this volume take the position that there should be universal opportunity for participation in higher education for everyone who has demonstrated the necessary intellectual capacity to cope with the proposed courses, and it is assumed by them that basic scholastic ability of the sort demanded for higher study is evenly distributed throughout society. Where biases in participation occur, such as in the disproportionate numbers of children from wealthy families attending university, it is assumed that this is due to environmental factors which result in differences in scholastic performance, motivation for higher study, or in the resources

necessary to continue with education beyond schooling. Factors such as social class, location of home, sex or ethnic origin, it is believed, do not correlate in any way with inherited intelligence. While it is impossible to test this conviction, because there is no measure of mental ability which is free of environmental influence, there is plenty of evidence to show that a child placed in an intellectually stimulating home environment will do better at school than one who is not.

A model showing the contribution which environment and inherited ability make to probability of entry to higher education was developed in a recent publication by Anderson, Boven, Fensham and Powell (1978: 68-74). It is produced here in a revised diagrammatic form as figure 1.1. The model emphasises that four conditions must be met for a student to enter higher education:

- an adequate number of places must be available
- the institution must be accessible to the student, both geographically and financially
- the student must have the necessary scholastic attainment to qualify for entry
- the student must want to enter.

The model illustrates that while basic ability influences level of achievement, environmental circumstances influence ability, aspiration and accessibility as well as achievement.

This model can usefully be applied when it comes to exploring policy options. For

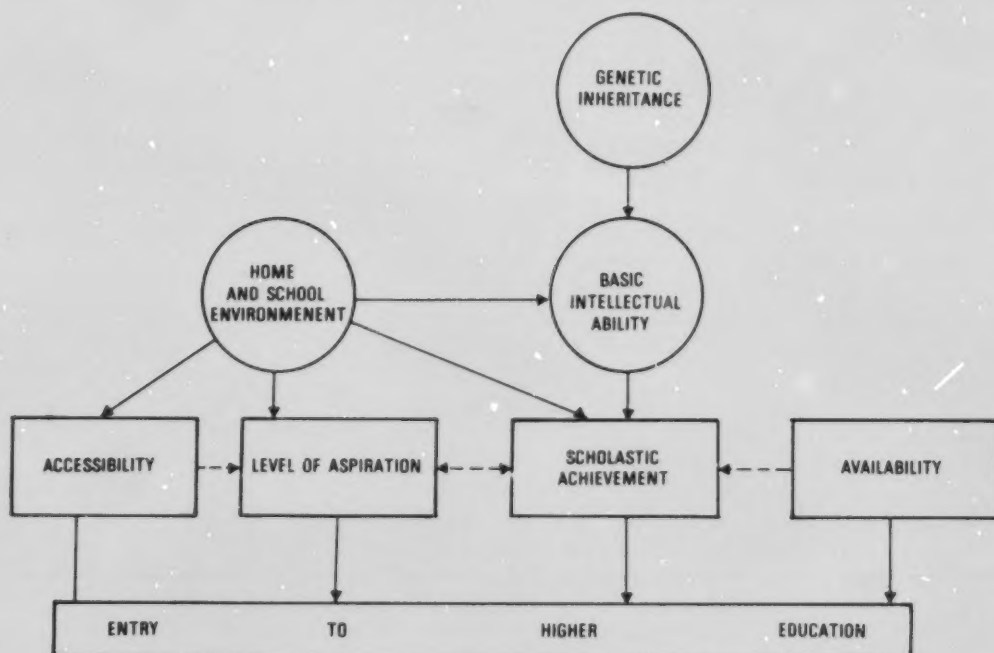


Fig. 1.1 Factors affecting probability of entry to higher education. Adaptation from Anderson, Boven, Fensham and Powell, 1978.

example, it enables us to see more clearly that improvements in the availability of higher education, such as the removal of barriers to access like tuition fees, are unlikely to be effective in democratising participation if unchanging environmental conditions depress scholastic achievement or keep aspirations low.

The chapters which follow focus on two points of the model. In the next chapter the trends in the availability of places in higher education are examined. The somewhat surprising conclusion is reached that while there has been an enormous expansion in student numbers this has not exceeded population increase by a great deal, with the result that rate of participation has remained fairly constant. Then follow two chapters which examine data concerning the demographic factors of age and sex, which are related to the environmental factors discussed in subsequent chapters: socio-economic status, type of school attended, geographical location of home, and ethnic background.

The ideal of education for all those who have ability is of course not the only principle which has been invoked in connection with the great expansion of post-secondary education in the post-war years; it is in fact a rather abstract view which is seldom uppermost in the minds of either students or governments. Students tend to regard their education in a mixed light, as both mealticket and way of self-realisation; governments tend to regard post-secondary education as an economic resource, and to a lesser extent as a means of personal fulfilment to which all individuals, at least in theory, have a right.

The social idealism of governments has a fragile quality in relation to education as much as to other services and institutions. Since the late 1950s there have been many statements by politicians and administrators on the importance of education both as an avenue for self-realisation by individuals and as a force for social equality; and there is no reason to doubt the sincerity of these statements. But it is clear that they presuppose a sense of economic well-being and confidence in the future coupled with a conviction that, anyway, an investment of this kind in self-attainment by citizens will more than repay itself through increased national productivity. Government idealism, in other words, is maintained insofar as it is not an economic liability. In the last few years the former sense of economic security has disappeared, belief in the economic returns of higher education has been shaken, and idealistic conceptions of the purposes of education have virtually disappeared from government statements. It remains to be seen, in the present straitened circumstances and atmosphere of disappointed idealism, to what extent rationales other than economic return can persuade governments to meet the not inconsiderable costs of post-secondary education.

These remarks are not intended as an expression of political cynicism, for it appears that politicians mirror the views of the population generally—whether or not this is because it is what, as representatives of the people, they are supposed to do, or, in some cases, because their political survival depends on being able to sniff out public opinion and revise their opinions accordingly. Whatever the reasons there is no doubt that government views on the purposes of higher education in the course of the years have been neither more nor less idealistic than those of the public and those of academic researchers. It is noticeable that in the studies of higher education students up to the 1960s, a common concern of researchers was to identify social and psychological factors affecting academic performance as a step towards improving selection and increasing the output of qualified people from the universities and colleges; research was undertaken from the viewpoint of the national economy and the efficient use of resources rather than the 'right' of the individual to higher education. And we shall see in what follows, consideration of the implications of participation in higher education for social change and equity seldom occurred before such concerns became widespread—and fashionable—in the later 1960s.

An Outline of the Major Studies

Research into the social background of higher education students in Australia has a short history. While university student numbers since 1906 have been recorded in *Australian Year Books* (for earlier years they have been compiled by Macmillan, 1968) and the records of individual universities have always contained information on the age, sex and schooling of their students, very little information on the social characteristics of higher education students is available for the years before World War II. That such information was seldom collected suggests that on the whole little importance was attached to issues relating to the social origins of students. Before the war it was commonly regarded as a matter of course that those persons with the talent, ambition and resources necessary for study at university level did so, while less talented individuals perhaps undertook some trade or technical training. The status quo of the distribution of goods and privileges in society was simply accepted, with a sense of predestination on the part of some and fatalism on the part of others. The idea that things could or should be otherwise, that perhaps social factors which could be altered severely limited the extent to which many capable individuals could take advantage of publicly financed education, rarely raised its head in educational circles. After all, most people believed in 'equal educational opportunity': what could be lacking if there were higher institutions which all had a right to enter regardless of class or race, as long as they had the prerequisite educational attainments and the wherewithal for fees and sustenance? There were a few scholarships for topflight achievers, but even the thought that this could cause a severe wastage of talent among less well-off students and hamper national development seems to have been late in coming. Only in Western Australia was university education free, and this may have contributed to the apparently disproportionate number of intellectual and political leaders who came from that state.

Despite the economic hardships and social unrest of the 1930s, education was not at that time widely regarded as a means of improving the life-chances of individuals. Few scholars appear to have been interested in the extent to which family background contributed to students remaining at school and going on to higher education, or the extent to which other factors such as sex, type of schooling or location of residence affected educational opportunity at a higher level. An exception was J.A. La Nauze who, in his paper 'Some Aspects of Educational Opportunity in South Australia' (1940), gave a perceptive analysis of the effect of social background on participation in university education in South Australia in the 1920s and 1930s. La Nauze's work is all the more important historically because he raised issues which were not faced in earnest until some thirty years later. La Nauze wrote:

There is no need for a statistical inquiry to prove that there is considerable inequality in the opportunity to acquire education beyond the minimum school-leaving age; nor to establish that this inequality is correlated with the level of income. But there is need to replace impressions with exact information; and more important to analyse the effects of inequality. It may then be possible to determine the stages of educational life at which social policy could most usefully be applied to counteract it, if this is considered desirable. (La Nauze, 1940: 31.)

Like many investigators after him, La Nauze used type of school attended as an indicator of the social class of students, working with the general assumption that families other than Catholics which sent their children to private (independent) schools tend to come from the higher income groups in the community, while children attending free public (state) schools tend to come from families with lower or average incomes. Applying these categories of public, Catholic and non-Catholic private school students, La Nauze found that non-Catholic private school students were greatly over-represented among

university graduates, especially among honours graduates, while those who came from public schools were under-represented.

Similar work was done in Victoria by N.K. Henderson who in 1941 submitted a Bachelor of Education thesis at Melbourne University on 'An Enquiry into the Distribution of Educational Opportunity in Victoria', later popularising his work in two booklets, *What Chance Has Your Child* (1942) and *Your Child and His Future* (1946). Henderson examined the schooling background of students at Melbourne in 1939, obtaining results similar to La Nauze. Like La Nauze, he derived his data on university students largely from university calendars.

Studies after the style of La Nauze and Henderson were, however, exceptions in early research relating to higher education students. It was the issue of student performance and national intellectual resources which, with the extra spur of the war, led to more widespread concern with the social background of students as one of the factors affecting performance. It is the problem of institutional efficiency which pervades most of the early studies of higher education students rather than a concern over the differential involvement of various social groups in higher education as a question of social justice. Since facilities at universities were limited it was felt to be in the national interest that students occupying university places should gain the appropriate qualifications as often and as rapidly as possible; student 'wastage' involved misuse of national resources and individual talent. Therefore research relating to students served mainly to provide a basis for selection criteria that would produce the greatest possible output of graduates to meet national manpower needs (see, for example, the studies discussed by Sanders, 1957, 1959).

Studies of student success and wastage in the 1930s at the Universities of Melbourne and Western Australia reveal very little about students' social background, but in 1944 and 1945 Sanders compiled data gathered on behalf of the Universities Commission—newly established as part of the war effort—which indicate some changes in the social background (as indicated by type of school attended) of students between 1939 and 1944, with a decrease in the proportion of students coming from non-Catholic private schools and an increased participation by those from state and Catholic schools. Sanders published his data in *Student Selection and Academic Success in Australian Universities* (1948).

What are apparently the only other studies containing details of the background of university students in the pre-war years are the much later ones by Madge Dawson (1965) and Serle (1971).

Dawson's study was of a sample of 1569 married women who had graduated from the University of Sydney. Since 8.5 per cent of her sample was born before 1901, and another 39.2 per cent between 1901 and 1920, an analysis of her results according to age of respondents yielded useful information concerning the background of female students in different periods. The major conclusion Dawson reached was not only that the social background of female graduates was strongly biased towards the higher socio-economic levels, with disproportionate numbers having fathers in professional and other prestigious occupations and parents educated to a tertiary level, but also that since the first decades of this century there had been an increase in the proportion of female graduates whose fathers had high-ranking occupations and a corresponding decrease in the proportion of those with fathers in sales, clerical, skilled and unskilled manual occupations.

Serle investigated the family background of some 300 history honours graduates from the University of Melbourne between 1937 and 1966. He found that although there was a decrease over the years in the proportion of students whose fathers had professional occupations, the children of skilled and unskilled workers remained consistently under-

represented while the only increase was in the proportion of those whose fathers were non-professional white collar workers.

Information relating to the occupational background of trainee teachers in New South Wales both before and after the war was given by Bassett (1958, 1961). Although the occupational categories used by Bassett are different from those used in later studies, his findings nevertheless have been confirmed many times since: while trainee teachers are less likely than university students to have fathers in professional occupations, they still tend to have a larger proportion with such backgrounds than the population generally, and while the children of small businessmen, tradesmen and other 'middle' occupational groups are well represented, those of unskilled workers seldom make it to teachers college.

The preoccupation with student performance and the productivity of universities characteristic of studies from the 1930s well into the 1960s is clearly observable in H.H. Hohne's reports of his survey of 1943 and 1944 entrants to Melbourne University, *The Prediction of Academic Success* (1951) and *Success and Failure in Scientific Faculties of the University of Melbourne* (1955). Hohne investigated the social background of students as one of a number of possible factors affecting performance. Like his predecessors he used type of school attended as one indicator of socio-economic status, but also used another indicator which, while crude, was nevertheless independent of school background. He divided students into three categories: those receiving financial assistance under the government's wartime assistance scheme, determined on a means basis; those not receiving government assistance; and those who had won scholarships on the basis of academic merit. Hohne found that non-Catholic private school students were over-represented, as were city students at the expense of those from the country; students receiving government financial assistance were significantly less successful academically than those in the other categories.

In the 1950s the focus of research on university students began to broaden and methodology became more sophisticated, though the preoccupation with performance remained.

A slightly idiosyncratic study—perhaps all the more interesting for that reason—carried out at the University of Adelaide by the Vice-Chancellor, A.P. Rowe, during the 1950s is reported in Rowe's book, *If the Gown Fits* (1960). This was a longitudinal study of 243 students from their enrolment in 1952 to graduation in 1956 and job experience in 1958. Using a rather crude occupation classification system, Rowe investigated the possible relationship between father's occupation and student performance. He also attempted to measure 'the general cultural standard of the student', or what he called the 'E factor', to determine if the type of cultural experience students had at home influenced their academic performance. Rowe found no link between father's occupation and academic performance, but did find that academic performance increased steadily with E factor, which in turn correlated with father's occupation.

Two surveys which examined most aspects of students' experience of university, including social background and its bearing on performance, were the one carried out at Melbourne University, written up in *Draft Report of the First Year Student Survey* (University of Melbourne, 1957) and S.B. Hammond's later article 'The Students and the University' (1962), and the University of Queensland study documented by Fred J. Schonell, Ernest Roe and Ivor G. Meddleton in *Promise and Performance: A Study of Student Progress at University Level* (1962). The Melbourne study surveyed just under 1000 first year students of 1955 and 1956, gathering information on items which have since become standard in studies of student backgrounds: father's occupation, father's income, previous family association with university, type of school attended, and location

of school attended (metropolitan, provincial or rural). The Queensland study also examined these items, and, like Hammond in his article, paid attention to the role of parents' attitudes—particularly with respect to higher education—in determining entry to university. The results were those which by now we have come to expect: the students were a very select group in terms of father's occupation, education and income; they were predominantly male, and the great majority came from the city rather than country areas, with a disproportionate number having attended non-Catholic private schools.

What appears to have been the only study of the social background of students at the University of Sydney other than that by Dawson mentioned above was carried out in 1958 and was reported by Philp, Debus, Veidemanis and Connell (1964). Using a random 10 per cent sample of all undergraduates and a fairly representative sample of 'the community'—drawn from the population of Sydney rather than New South Wales—Philp *et al.* obtained results 'similar to those revealed in other studies of university populations', such as the University of Queensland study by Schoneli, Roe and Meddleton (Philp *et al.*, 1964: 55).

Also in 1958 what appears to have been the first study of college of advanced education students was published by the Australian Council for Educational Research: although *Some Characteristics of Students Proceeding to Higher Technical Education* provides some information on the social background of students at the Royal Melbourne Institute of Technology, the small sample used and the poor response rate make the survey significant only as a starting point.

It was in the late 1950s that the social composition of the university student body began to be considered in relation to both the background of students in other branches of tertiary education and the social composition of the senior years of secondary school. It was at this time that researchers began to pay serious attention to the view of education (anticipated by La Nauze and Henderson) as a selective process operating on principles of social differentiation in which entry to university is only one of the final steps.

Ralph Berdie's *Manpower and the Schools* (1956) turns out to say very little about manpower. As his title indicates, Berdie's point of departure was the nation's need to capitalise on its intellectual resources. Education is the process which develops these raw materials. Despite this familiar framework of assumptions he devoted considerable time to examining how the educational plans and aspirations of school children are influenced by factors such as father's occupation, parents' education, and country of origin. Berdie found that children who aspired to go to university were likely to have fathers who were professionals and have parents who were themselves highly educated; children whose parents were born in non-English speaking countries were more likely than those of Australian or other English speaking parents to plan to go to university—a finding which has been confirmed by later studies.

This study was followed by a survey of school students who in 1957 matriculated to Australian universities, which was carried out by the Commonwealth Office of Education and the Australian Council for Educational Research. This report, *Matriculation—and After* (1961) is unfortunately a fairly clumsy affair in which much of the value of the study is lost, but its findings are consonant with those of other studies.

A better study is W.C. Radford's *School Leavers in Australia: 1959-60* (1962), the report of a survey undertaken by the Australian Council for Educational Research of some three-quarters of the 145,000 children who left Australian schools between April 1959 and March 1960. This study examined in detail the destinations of school leavers according to variables such as age, sex, type of school attended, location of school, academic ability as indicated by examination performance and teacher's assessment, and

father's occupation. As well as giving details of the background of university entrants, the study yielded information about the occupational background of entrants to other post-secondary institutions, such as teachers colleges, senior technical colleges or colleges of advanced education, and business colleges, and also about occupational mobility between generations. Comparisons between various groups of students and their non-studying peers could therefore be made. The result was a clear hierarchy of institutions according to the social background of their students: universities had the greatest proportions of students of high socio-economic background, then CAE students, and then teachers college students, in which the number of students of high socio-economic background was still much higher than what would be expected from the occupational profile of the national population.

This school leaver study was repeated by the Australian Council for Educational Research (ACER) in 1971-2 and reported by Radford and Wilkes (1975). Although differences in the presentation of the data make a general comparison of the results of the two studies impossible, some small but significant changes appeared to have taken place in the intervening years: more school leavers overall went to university in 1971-2, and participation by students whose fathers worked in semi-skilled or unskilled jobs appeared to have improved somewhat.

At this point mention should be made of another study which made comparisons between tertiary students and their non-academic peers. In 1957 a sample of 421 Melbourne primary school boys was studied by S.B. Hammond and F.N. Cox (1967) in order to identify social and psychological factors influencing educational achievement. Ten years later a follow-up study was done which compared those boys of the original sample who had entered university or equivalent courses at the Royal Melbourne Institute of Technology, and a group from the original sample whom tests had shown to be their intellectual equals but who had not undertaken high level study. The follow-up study was reported by M.B. Gilchrist and S.B. Hammond (1971). Again, high occupational status and a tertiary level of education on the part of the father, as well as attendance at a non-Catholic private school, were found to correlate strongly with entry to higher education. At least as important, however, was the level of educational aspiration parents had for their children.

Studies of university students which examined the possible influence of social background on performance continued to be made during the late 1950s and the early 1960s, including work by D.S. Anderson at Melbourne University (1960), M.J. Theobald also at Melbourne (1961), P.W. Hughes at the University of Tasmania (1960) and C.N. Katz, F.M. Katz and W.B. Olphert at the University of New England (1965). All found that entry to university certainly was positively associated with high social background.

Considerable information concerning the social background of university students of the mid-1960s was gathered in the course of a longitudinal study of professional socialisation by D.S. Anderson and J.S. Western (1970). The study aimed to discover the extent to which attitudes and values changed as they received professional training at university and the extent to which their outlook approached that characteristic of their profession. Accordingly new entrants to faculties of engineering and law in 1965, and to faculties of medicine and teacher education in 1967, at all Australian universities were asked to answer questionnaires soon after they enrolled and at later points in their careers. From the early questionnaires social profiles of 3146 students were compiled. Once again those of high socio-economic background were over-represented. Medicine and law students tended to have the highest socio-economic background, while that of trainee teachers was the lowest.

That trainee teachers tend less frequently than other higher education students to have fathers in professional occupations and more often to have fathers who are skilled or unskilled workmen has also been demonstrated by studies of trainee teachers in New South Wales by Bassett (1958, 1961, 1963) and Pike (1966), and in Western Australia by McKevitt and Douglas (1973).

Perhaps the most important single source of information concerning the social background of higher education students in Australia is the survey of new entrants to undergraduate courses at the University of Melbourne, carried out annually (except for 1971, 1973, 1977 and 1979) from 1962 to the present. This virtually unbroken supply of data presents a unique opportunity for the discovery of possible changes in the social composition of the student body at one institution over a considerable period of time. Data for the years 1969 and 1970 were written up by Lee Dow, Jones and Osman (1972), but results for later years were not published until they were recorded as background information in the study of the effect of the abolition of tertiary fees by Anderson, Boven, Fensham and Powell (1978: 54-7).

An annual survey similar to the Melbourne one has also been carried out of new entrants to Monash University by the Higher Education Advisory and Research Unit since 1970. Results of the 1970-1 surveys have been published by Ryan (1972), 1970-2 by Smurthwaite (1974), and 1970-5 by Slamowicz, Smurthwaite and West (1976).

Both the Melbourne and the Monash surveys yielded data on a range of social items, including age, sex, type of school attended, location of school, ethnic and linguistic background, religion, father's occupation, parents' education and income. The studies are especially important because, unlike most of the earlier studies, which were preoccupied with the question of academic performance, information relating to social background was gathered because it was considered an important topic in itself rather than because it might affect performance. In this the surveys reflect the growing concern in the 1960s and early 1970s about the extent to which different social groups participate in higher education on an equal basis.

The most significant conclusion that can be drawn from these studies, particularly the University of Melbourne one, is that not only do biases of the sort already described exist in the composition of the student body, they are also remarkably stable over the timespan of the surveys, so stable in fact that it makes one pessimistic about the likelihood of equal participation by all social groups being achieved in the foreseeable future.

The developing concern among researchers of this period over the question of participation in higher education as a matter of distributive justice, to be considered from the point of view of the individual rather than in national terms as a question of economic benefit, is clearly apparent in the rapidly increasing number of studies dealing with the participation by particular social groups in tertiary education.

The relatively low rate of participation and widespread underachievement by women in education has been examined in many studies, but was the specific concern of Keeves and Read (1976), the Study Group to the Schools Commission (1975) and the Victorian Committee on Equal Opportunity in Schools (1977).

Verco and Whiteman (1970) in New South Wales and Fyfield (1970) in Victoria drew attention to the fact that in terms of educational achievement and participation at higher levels country students lagged well behind those in the capital cities. During the 1970s the problems faced by country students received considerable attention in a series of studies commissioned by the Commission of Inquiry into Poverty, as well as work initiated elsewhere. Important contributions include those by McGaw, Warry, Varley and Alcorn (1977), Behrens (1978), Behrens, O'Grady, Hodgson, Houlst and Hughes (1978), Stoessiger (1980) and Turney, Sinclair and Cairns (1980).

The educational aspirations and participation in higher education of students of migrant background were examined in detail in a series of Victorian studies which have been largely the work of Ronald Taft (Taft, Strong and Fensham, 1971; Taft, 1975a, 1975b). Information on this topic was also provided by Smolicz and Wiseman (1971a, 1971b) and Bourke (1971). The Victorian studies showed that educational aspirations of students from some migrant groups (e.g. Greeks, Yugoslavs, Poles) were much higher than those of Australian students, especially among students from working class families. This finding is important because it implies that there is nothing inevitable about 'class' attitudes to education, that the low value placed on educational achievement in many Australian working class families is as much a matter of local cultural peculiarities as of socio-economic position. The studies also showed that students of non-English speaking backgrounds were at least as likely as native English speaking students to enter a higher education institution, but that the extent of participation was not what we would expect from the high level of aspirations expressed. Similar findings were reported by Turney, Inglis, Sinclair and Straton (1978), Martin and Meade (1979) and Isaacs (1981).

Mitchell (1976) found that students of migrant background entered Macquarie University in 1974 more or less in the numbers one would expect if the occupational distribution of migrants in the population was taken into account.

The overall conclusion in relation to participation by students of migrant background in higher education appears to be that although many such students have high aspirations in comparison with Australian students—especially those of working class origins—these aspirations are frequently not realised because of the difficulties experienced by migrants, particularly difficulties arising from a limited knowledge of English.

The problems experienced by Aborigines also began to receive wide attention in the late 1960s, though in their case educational matters were usually considered—as they should be—as part of wider social and cultural conflicts. Significant studies which discussed the very low rate of participation and achievement by Aborigines in *any* sort of education were those by Biddle and Smith (1970, 1975), J.L.M. Dawson (1970), Beasley (1970), Watts (1971, 1976), Gale (1972), Sommerlad (1972) and Binnion (1976).

In many studies of higher education students marked differences have been noted in the social differences between full-time students and those studying part-time. Part-time students were the concern of a study carried out at the Australian National University by the Education Research Unit in 1968-9. Its findings agree with those of other studies: part-time students tend to have a lower socio-economic background than full-time students.

Mature age students have become a subject of interest only recently. Continuing or lifelong education has been a much used concept, but if the growing number of mature age students enrolling in universities and colleges in Australia is any indication, it is far from being a purely academic one. Studies of mature age students have been carried out at Prahran CAE by Dickson, Killingsworth and Wilkinson (1979), and at Monash University by Hore and West (1980). Although higher SES groups are still over-represented among mature age students, their dominance is much less pronounced than among students proceeding direct from school to higher study. It appears that a significant number of mature age students are people of lower SES whose opportunities for study in early years were limited by circumstances.

The increasing preoccupation of researchers in the late 1960s and early 1970s with questions of the extent to which members of different social groups are in fact able to take advantage of opportunities for higher education, and hence have access to the social goods and privileges to which it commonly leads, is also demonstrated by the number of studies made at that time of the senior years of secondary school and the transition to

higher education which focus their attention on the way in which some groups drop out of education much earlier and more readily than others. These studies show that entry to a higher institution is only the last step of a social selection process that proceeds at all levels of schooling.

Dunn, Fensham, Osman and Strong (1969a, 1969b) investigated the plans for higher study of more than 6000 Victorian senior secondary school boys and their course of action in 1967. They compared the rate of attrition for students with lower socio-economic backgrounds, migrant origins and government secondary school education with that for students from more affluent homes, those of Australian background and those educated at private schools. Fensham and Taft (1973) did follow-up work on the same sample. The main findings were that the social background of senior secondary school students was biased towards the upper end of the socio-economic spectrum in much the same way as that of higher education students. Although there was some further attrition in the transition to higher education among students of low socio-economic background, it seemed that if they managed to survive to the end of schooling students of low socio-economic status had almost as good a chance of continuing to higher education as those of higher socio-economic background. Students with a non-English speaking background were at least as likely as native English speakers to undertake higher study.

Retention rates for schools of the different systems and the rate of entry to higher education in Western Australia by students from various social groups have been studied by Dufty (1972) using data for 1970-1 supplied by the Western Australian Education Department and the WA Tertiary Education Commission. Non-Catholic private schools had the highest retention rates, followed by Catholic schools, and public schools had the lowest. Among students entering tertiary institutions the usual patterns were observed: most university students tended to come from higher socio-economic groups, then CAE students, and teachers college students least of all.

The title of La Nauze's pioneering work in South Australia is duplicated in that of Blandy and Goldsworthy's report *Educational Opportunity in South Australia* (1975), which follows his lead by examining the extent to which the ideal of equal educational opportunity is attenuated in fact by differences in social class, ethnic background, schooling and place of residence. Once again the finding was reached that social class affects the likelihood of continuation through the school system and—to a lesser extent—entry to higher education. The now familiar social hierarchy of the different types of higher institution was also revealed.

Many important studies of school leaving patterns and entry into the workforce and/or post-secondary education were discussed by Sturman (1979). Those carried out in the 1970s include the La Trobe 15 to 18 Year Old Project, reported in a number of publications by Poole and others (Poole, 1978a, 1978b; Poole and Simkin, 1976; Poole, Juchowski and Jones, 1977), the study carried out in Sydney by Meade (1978), and the ACER study reported by Williams, Clancy, Batten and Girling-Butcher (1980).

The work of Williams *et al.* (1980) derives from a survey of a representative, Australia-wide sample of 4919 individuals aged 17 years on 1 October 1978. An important aspect of this study is that the various factors affecting school achievement and the decision to stay on at school are each considered individually while statistically controlling for the effects of other factors. It was found that factors affecting the decision to stay on at school or leave include state of residence (students in the ACT were more likely to stay on, those in Tasmania least so), type of school attended (those attending public schools were least likely and those in non-Catholic private schools were the most likely to stay on), level of school achievement, sex, and various family characteristics. Students of high SES were most likely to stay on, as were those born in a non-English speaking country.

It was in the late 1960s that the college of advanced education system was developed, with existing senior technical colleges, teachers colleges and agricultural colleges being incorporated into a co-ordinated system and new colleges being established. In view of the hopes and expectations surrounding the establishment of the college system—the colleges were to meet needs not being met by the universities, offering courses which were vocational in orientation and at a level below that of university study, and therefore presumably catering for students different from those enrolling in university courses—it was to be expected that the background of students enrolling in the new system would be of considerable interest to researchers, especially for comparisons with that of their university counterparts.

B.C. Horne and B. Wise (1970) studied the college experience of slightly less than 3900 first year college students enrolled in business studies and engineering courses. Although, as the title of their work indicates, they were concerned mainly to describe the learning situation in the colleges, they also paid attention to the social background of the students. Horne also described the social background of college engineering students in a paper published by ACER together with the Anderson and Western study of professionalisation (Horne, 1970). He and Wise found that while fewer college students than university students had fathers who worked in a professional or administrative capacity, the proportion that did so was still far greater than that in the corresponding age group in the general population; the families of college students were also less likely than those of university students to have had previous experience of higher education. In the college faculties studied by Horne and Wise, women were outnumbered by men 10 to 1.

Students of applied science in colleges of advanced education in 1969 were the subject of a study of H. Maddox (1970), who examined the social background of 803 CAE students (and 255 university science students for comparison) in terms of the familiar variables of age, sex, type and location of school attended, ethnic background, father's occupation and income, and parents' education, together with differences between faculties, between colleges and universities and between part-time and full-time students. Maddox's results also corroborate those of other studies: comparing his results with those of others, Maddox concluded that, if anything, the representation of children of manual workers among higher education students had declined rather than increased. Full-time university students had the highest socio-economic standing, followed by part-time university students, then full-time college students, with part-time college students at the bottom of the hierarchy.

A survey of college of advanced education students was also carried out as part of the study of regional colleges of advanced education by the Education Research Unit of the Australian National University in 1973-4 (Anderson, Batt, Beswick, Harman and Selby Smith, 1975). Although the main aim of the study was a complete description of all aspects of regional colleges, a sample of urban college students was included in the student survey for comparison purposes. Matriculation students in rural and provincial areas—potential CAE students—were also surveyed, giving a total sample of approximately 2000 college students and 5000 matriculation students. Both social and psychological characteristics of students were examined in an attempt to determine their effect on likelihood of entry to higher education, type of institution entered, course undertaken, and attitudes resulting from their experience of higher education. Some important findings of this study were that high family socio-economic status appeared to have less bearing on whether or not a student continued from school to higher education than it did of whether a student who did continue entered a university or a college of advanced education; little evidence was found of discrimination by families against their daughters on entry to higher education; many country matriculation students expressed a preference for leaving their home

town or area, but regional higher institutions nevertheless were entered by more local matriculants than would be expected from the expression of that preference; whether a student entered a university, multi-purpose college of advanced education or a teachers college correlated directly with the size of their home town; the main effect of regional colleges appeared to be to encourage more local people to study at a higher level than perhaps would have been the case if higher education was not available locally.

Perhaps the best illustration of the increased concern in the late 1960s and early 1970s with participation in higher education from the point of view of the individual rather than the state, and as a matter of social justice rather than economic development, is to be found in the nature and scope of the research undertaken by and on behalf of government instrumentalities. It is in such research that we find these principles officially adopted as a guide for government policy—if not always for government practice.

The new trend in government initiated research and officially-sponsored reports is epitomised by the report of the Interim Committee of the Schools Commission (Karmel Report), *Schools in Australia* (1973). One dominant theme of that report was the problem of equalising educational outcomes, an important doctrine of social reform which, despite its critics, has pervaded much of the policy-making in education in subsequent years. The fundamental observation was that simply to talk of equal educational opportunity was not enough, that something had to be done to assist the many students from various disadvantaged sections of the community who could not take advantage of the opportunities to which, in theory, they had access.

In recent years the expanded research activities of the tertiary education commissions (now councils), the Federal Department of Education, the Schools Commission, and the state education authorities have been a mine of valuable information on educational matters. The work done or sponsored by these institutions is too extensive to summarise here; it can only be acknowledged. Among the studies cited in the following chapters are a national survey of students' costs and incomes carried out in 1974 by the Australian Department of Education and the Australian Union of Students (which was preceded in 1973 by a similar survey by the Student Representative Council at the University of Melbourne) and the comparison of the socio-economic background of university and college students based on data from that survey by Beighton and Gallagher (1976); the evaluation study of the Aboriginal Secondary Grants Scheme undertaken by B.H. Watts (1976) on behalf of the Federal Department of Education; the study of the effect of the abolition of tertiary fees on the social composition of students carried out by Anderson, Boven, Fensham and Powell (1978) for the Australian Vice-Chancellors Committee; and the important series of studies commissioned by the Commission of Inquiry into Poverty in the general area of education and poverty, which began to be published in 1973 when the Commission was established. As would be expected, the studies undertaken for the Commission of Inquiry into Poverty provide information on those sections of the community that seldom make it to higher education, such as the poor in inner city suburbs, country people and Aborigines, rather than those that do.

Of this officially sponsored research, it is the study of the effect of the abolition of tertiary fees on the social composition of students, by Anderson *et al.* (1978), that is of most immediate concern to the theme of these chapters. The abolition of tertiary fees by the Labor Government in 1974 has been the only attempt in the history of Australian higher education to directly change the social composition of the student body that was prompted by the ideal of equal educational participation for members of all sections of society. (The government scheme of financial assistance to needy students during World War II arose from considerations of national security.) Its evaluation is therefore of vital

importance for any future policies aimed at making the concept of educational equality a reality.

Using a nationwide sample of 5080 university students and 3466 college of advanced education students, the study drew a picture of the composition of the higher education student body in 1976-7 that sums up the findings of earlier studies:

Within higher education the social composition varies with the type of institution, type of enrolment and metropolitan or country location. The order, from highest to lowest on the composite s.e.s. index, is: university full time, university part time, metropolitan C.A.E. full time, metropolitan C.A.E. part time and country C.A.E. A similar order is obtained if the indicator is secondary education at a non-Catholic independent school. (Anderson *et al.*, 1978: 255)

As far as the abolition of fees was concerned, the conclusion was that its immediate effect was small, though a large proportion of students, most of whom were of lower socio-economic background, indicated that tertiary fees would have caused them to either defer enrolment or not enrol at all.

Conclusion

The foregoing survey of studies of higher education students in Australia reflects the preoccupations of the times. Before World War II universities were, in national terms, a minor operation, funded from student fees and meagre annual grants from state governments. The absence of research studies, or even of data collection, indicates the low significance of higher education in Australian society at the time.

During and immediately after the war studies were concerned with institutional efficiency: means of identifying talent and selecting those students who were not going to fail. Universities were coming to be seen as instruments of national purpose. During the 1950s studies of selection continued and the first studies of academic performance began to appear. Efficiency remained an important consideration but a concern for students' welfare can be detected in the comments on high failure rates. This was the period when many new student services were established: counselling, health, housing and study skills units.

The concern for equity in access to education developed during the 1960s and has continued until the present time. To the early studies of the social composition of students was added analysis of participation of other groups: women, migrants and country residents. Education was now seen by a majority of parents as the main avenue for enhancing the life chances of their children. Retention rates in secondary education climbed sharply and intense competition for entry to university courses resulted in the introduction of entry quotas, first in medicine and later in almost every other course. Entry to quotas was determined by listing students in 'order-of-merit' and admitting the number in accord with the teaching capacity of the relevant university departments. Almost without exception order-of-merit was determined by aggregate marks at the matriculation examination. The use of other criteria—interviews, school reports, personality tests, or having sub-quotas for special groups—were regarded as being in various ways unfair. Moreover, research studies showed that aggregate examination marks were the best single predictor of subsequent performance and that addition of other tests did little to improve the prediction.

The inequity of the supposedly fair order-of-merit system for determining quotas has attracted increasing critical attention as research studies have continued to show social bias in favour of the more privileged sections of the community in the student body so recruited. The only significant effort to assist students from less privileged backgrounds

has been the abolition of tuition fees and the introduction of the Tertiary Education Assistance Scheme by the Labor Government in 1974. There was very little discernible change in the social makeup of the undergraduate population following these changes. The new financial aid, however, helped contract the social regression caused by the elimination during the late 1970s of the very valuable State Education Departments' teaching studentships which at one stage were held by some 50,000 tertiary students, many of them from modest backgrounds.

In the meantime the downturn in the economy after 1974, the escalating costs of higher education, graduate under-employment and an anti-academic sentiment in the community have led to questioning of the scale and efficiency of university education. It is too early yet to see which themes will characterise the next round of research studies. It seems likely, however, that there will be a return to the concern with efficiency. The Williams Report, released in March 1979, has drawn attention to the continuing low graduation rates and recommended studies of student performance. The enquiry, chaired by Professor Williams, into Education Training and Employment was announced by the Federal Government in September 1976, and its title and terms of reference were symptomatic of the renewed concern that post-secondary education should be efficient and should contribute to the economy.

Our survey of research on students has indicated unequivocally the overall conclusions that are to be drawn from the studies: the composition of the student body has been quite select and remarkably stable over the years. But when it comes to questions of detail and precise measurement of participation in higher education by particular groups, we are immediately swamped by the bewildering array of formats and categories used by the investigators, particularly in connection with matters such as the classification of occupations as a criterion of socio-economic status. This lack of a systematic, consistent method of describing social characteristics means that some effort of interpretation is required before the results of the various studies may be compared and collated. Accordingly, the chapters which follow take up item by item the characteristics of students with which investigators have been preoccupied in an attempt to draw together their conclusions.

One point which emerges very clearly from the studies reviewed in this and the following chapters is that the great majority of them have originated in Melbourne while virtually nothing has come from Sydney. We have been able to find only a few studies that have emanated from the University of Sydney, while the few that have come from other New South Wales universities have been largely the results of researchers who were formerly at Melbourne. The University of Melbourne, the Australian Council for Educational Research and Monash University have been the main sources of information on the social background of students. The reasons for this difference in the level of interest in this topic between the two main intellectual centres of Australia are not clear. Some may turn to the differences in outlook and temper between Sydney and Melbourne that have been identified by scholars such as Manning Clark; others may prefer in this particular instance to attribute the differences to the different orientations of the psychology departments at the University of Sydney and the University of Melbourne during the 1940s and 1950s. The Melbourne department was socially determinist and reformist, and many Melbourne graduates entered educational fields, becoming interested in describing and accounting for inequalities in educational participation and performance. The Sydney department, on the other hand, tended to assume a genetic determination of behaviour, and much of the research carried out by its graduates has taken the form of factorial studies of personality. Whatever the explanation, the difference in the amounts of data from New South Wales and Victoria remains. In view

of the extent of the variation of results some studies have found from state to state, we should be cautious in generalising the results of the many Victorian studies either to New South Wales or to the other less populous states.

Technical and Further Education as an Afterthought

The subject of this volume is the social background of post-secondary education students. The term 'post-secondary education' appears to be pretty well coextensive with the term 'tertiary education' as it is currently being used in official circles in Australia. Tertiary education, according to present usage, includes technical and further education; hence technical and further education is regarded as falling within the province of the reformed Tertiary Education Commission. Thus far, however, there has been no mention of studies of technical and further education students. The reason is the simple one we might expect: until very recently there had not been any. What that says about the researchers who have devoted their time to studying university and college students is uncertain; perhaps narcissism on the part of academics takes us some of the way towards an explanation of this neglect of what is and always has been the largest student group in post-secondary education, but in the main it would appear that it is just one more indication of the lack of interest technical and further education has, until very recently, received from politicians, administrators, the teaching profession and the general public. Higher education—that is, university and college education—has always aroused more interest because intellectual skills have been valued more than manual skills and because the professions have been endowed with greater status and material rewards than the trades. Thus the question of who gets to university or college and who does not has been an issue because of the social privilege to which it gives access, while technical and further education has commonly (but not necessarily correctly) been regarded as the lot of those who for some reason or other missed out. It may well be—and this point is discussed in our final chapter—that it is this neglect of technical and further education that is symptomatic of a widespread elitism in Australian society, an elitism to which the ineffectualness of higher education as an instrument for social equality and distributive justice can partly be traced.

The only study of students of technical and further education to date has been carried out by the Federal Department of Education (1978). This is discussed in the chapter on technical and further education.

2 Numbers

Compared with other data on post-secondary students, information on student numbers is far more readily available. Figures for student enrolments at universities go back to the last century (see Macmillan, 1968: 74), though college enrolment figures for the years before the college of advanced education system was established are not so easily acquired since details are dispersed in the records of the various state education departments, and the second class citizens of technical and further education have only recently begun to be counted accurately, despite the excellent records in some states—especially New South Wales—going back to the earliest years of technical colleges.

University Students

It is commonplace to remark on the rapid expansion of higher education in Australia since World War II. We should be careful, however, not to assume that the dramatic growth which has occurred in that time, especially in the number of students attending university, has been uniform and constant. If we look at figure 2.1, which presents graphically the growth of university student numbers since 1906 in comparison with the growth rate of the population of Australia and of the 17-22 year old age group for the same period, we see that radical changes have taken place in the rate of university expansion in the post-war years especially. After a slump in student numbers during the war years, university enrolments increased sharply in 1946 and 1947 when numbers were swelled by returned servicemen and women enrolling with the financial assistance of the Commonwealth Reconstruction Scheme. This boom was necessarily short, and by 1949 enrolments were decreasing, as was the normal potential undergraduate population, the 17-22 year old age group. From 1949 to 1955 numbers remained below that of the peak year of 1948, and only then did the long period of steady growth begin. Even in the financially lean years of 1976-8 student numbers have continued to increase, though the proportion of full-time undergraduates fell and in 1978 the Tertiary Education Commission concluded (1978: 1, 32) that 'growth in the university sector has, for all practical purposes, ceased'.

Actual student numbers for the period 1906-78 are given in table 2.1. In 1945 there were 15,586 university students. Two years later there were 30,477, almost twice as many. But when the major period of expansion was about to begin, another eight years later, the number of students was still less than 31,000. Between 1955 and 1980 numbers increased from 30,792 to 163,156, with an annual growth rate ranging from 13.6 per cent in 1959 to 0.5 per cent in 1979, when it was the lowest of any year since the period of stagnation in the early 1950s. In the thirty years from 1945 to 1975 the number of students enrolled in Australian universities increased almost tenfold, while in the same period the national population did not even double. Figure 2.1 clearly shows the disparate rate of increase of enrolments and population; they are also evidenced in table 2.1 by the steady increase in the ratio of university undergraduates to the number of the Australian population aged between 17 and 22 years, which rose from 3.5 per cent in 1946 to 9.5 per cent in 1976 and 1977.

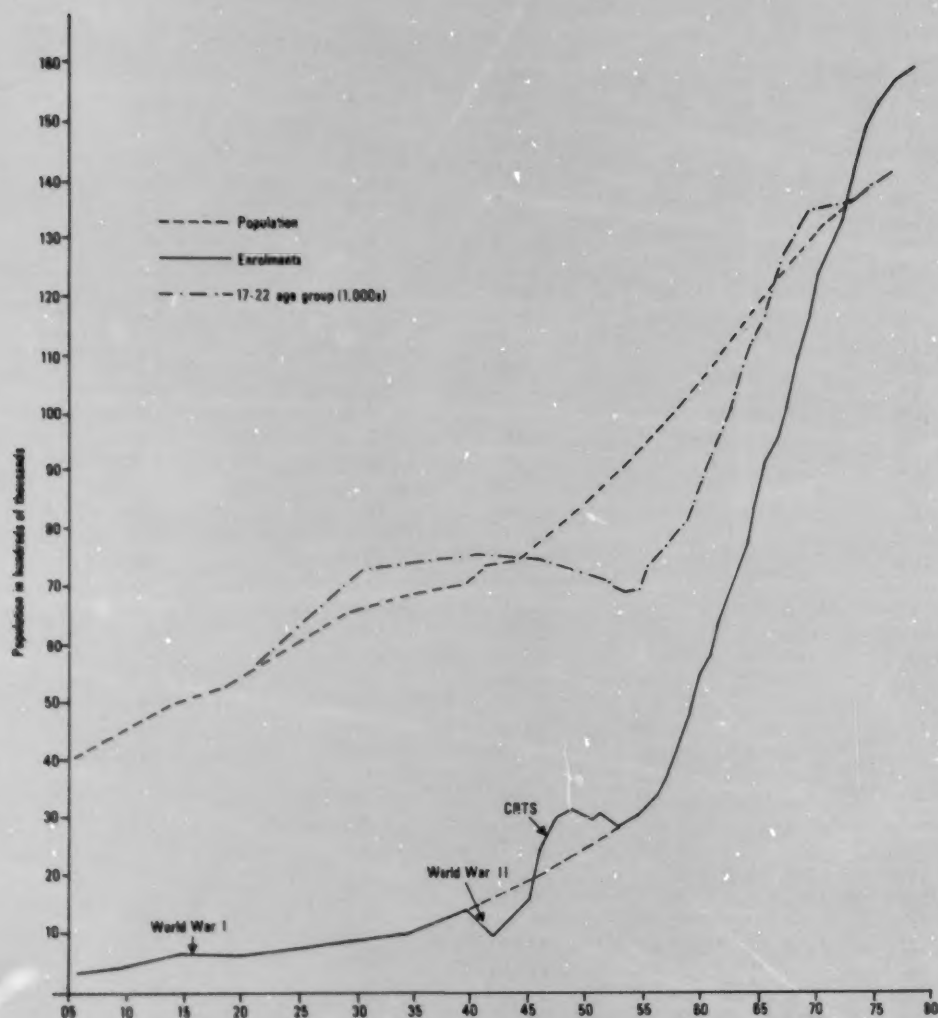


Fig. 2.1 Number of students at Australian universities, 1906-80 compared with population.

Table 2.1
Students at Australian universities, 1906-81

<i>Year</i>	<i>Higher degree</i>	<i>Undergraduate</i>	<i>Total students</i>	<i>Increase on previous year %</i>	<i>Ratio of undergraduates to 17-22 years age group %</i>
1906			2595		
1909			3041		
1914			6297		
1919			6395		
1920			7865	23.0	
1921			7963	1.2	1.4
1922			7770	-2.4	1.4
1923			7335	-5.6	1.3
1924			7738	5.5	1.3
1925			7440	-3.9	1.2
1926			7871	5.8	1.3
1927			7859	-0.2	1.2
1928			7988	1.6	1.2
1929			8497	6.1	1.2
1930			9483	11.6	1.4
1931			9830	3.7	1.4
1932			9942	1.1	1.4
1933			9844	-1.0	1.3
1934			10,217	3.8	1.4
1935			10,297	0.8	1.4
1936			10,657	3.5	1.4
1937			11,098	4.1	1.5
1938			12,126	9.3	1.7
1939			14,024	15.7	1.9
1942			10,761		1.4
1943			11,675	10.9	1.5
1944			12,966	11.1	1.7
1945			15,586	12.0	2.1
1946	151	25,434	25,585	16.4	3.5
1947	247	30,230	30,477	19.1	4.1
1948	305	32,148	32,453	6.5	4.4
1949	329	31,424	31,753	-2.2	4.4
1950	496	30,134	30,630	-3.5	4.2
1951	536	31,135	31,671	3.4	4.4
1952	681	28,960	29,641	-6.4	4.2
1953	761	28,031	28,792	-2.9	4.1
1954	855	28,519	29,374	2.0	4.2
1955	1026	29,766	30,792	4.8	4.2
1956	1120	33,286	34,406	11.7	4.6
1957	1357	35,211	36,568	6.3	4.7
1958	1672	39,820	41,492	13.5	5.1
1959	2226	44,925	47,151	13.6	5.5
1960	2770	50,621	53,391	13.2	6.0
1961	3170	54,502	57,672	8.0	6.2
1962	3814	59,503	63,317	9.8	6.4
1963	4551	64,523	69,074	9.1	6.6
1964	5383	70,805	76,188	10.3	6.7
1965	6169	77,180	83,349	9.4	6.9
1966	7560	83,731	91,291	9.5	7.2
1967	9181	85,328	94,509	3.5	7.5
1968	9212	91,083	100,295	6.1	7.2

Table 2.1 (contd)
Students at Australian universities, 1906-81

Year	Higher degree	Under-graduate	Total students	Increase on previous year %	Ratio of undergraduates to 17-22 years age group %
1969	10,535	97,720	108,255	7.9	7.5
1970	11,543	104,087	115,630	6.8	7.9
1971	12,458	110,210	122,668	6.1	8.5
1972	13,029	114,616	127,645	4.1	8.6
1973	13,760	118,797	132,557	3.8	8.8
1974	15,241	127,059	142,300	7.4	9.2
1975	16,676	131,662	148,338	4.1	9.3
1976	17,589	136,371	153,960	3.7	9.5
1977	18,430	139,981	158,411	2.8	9.5
1978	19,164	140,871	160,035	1.0	9.4
1979	19,902	140,908	160,810	0.5	9.2
1980	20,574	142,582	163,156	1.5	9.6
1981	21,821	144,790	166,611	2.1	11.9

Source: For 1906-45, Australian Commonwealth Year Books; for 1946-74, Universities Commission, 1975: 72; for 1975-80, ABS *Universities* bulletins (figures for 1981 are provisional only) and ABS, *Estimated Age Distribution of the Population, States and Territories of Australia*.

One important aspect of university growth has been the upward expansion represented by the growing proportion of higher degree students, which has increased from 1.6 per cent in 1950 to 5.5 per cent in 1960, 11.1 per cent in 1970 and 12.6 per cent in 1980.

The foregoing makes it obvious that the growth of university enrolments since the war cannot be accounted for simply by the growing population. In fact, even if population growth was the same as that of enrolments, it is difficult to see how population growth alone could 'explain' the increased enrolments, unless it was assumed that the more people there are the more automatically go to university to maintain the balance between student numbers and national population. Clearly, for more people to enter university there must be both motivation on the part of new entrants and places in institutions for them to occupy. This necessarily introduces a number of complex psychological, social and political factors into any explanation of the growth in student numbers.

Since student numbers decreased in the early 1950s it seems safe to say that, in the absence of government policies limiting enrolments, demand for university education slackened. This decline in demand had two major causes. The first was the gradual decrease in the 17 to 22 year age group, which began around 1940 and continued until 1955, when it began to expand rapidly. Thus during the 1940s and early 1950s the fundamental demographic limits on the potential tertiary student population narrowed. However, this demographic effect was slight in comparison with the dislocations caused by World War II and its aftermath. A period of stagnation was the natural sequel to the steep rise in student numbers after the war when returned servicemen and women received assistance under the Commonwealth Reconstruction and Training Scheme as part of a national rehabilitation program. This exceptional increase in enrolments followed the slump of the war years when young men were drafted into the army rather than tertiary education. Since 1955 university enrolments have increased consistently, though growth has eased off in the last few years.

It must be emphasised that figure 2.1 does not show the full extent of the demand for university education: all it shows is the number of places occupied at universities, and of

course the number of places occupied depends in the first instance on the number of places available, which in turn depends on government finance. There is ample evidence to show that in the late 1950s demand for university places began to outstrip availability, especially in keenly contested faculties such as medicine, law and architecture, and that enrolments would have increased even more dramatically but for the limits imposed on university expansion by both governments and the universities themselves. The funds available to the institutions were inevitably limited and could only be spread so far before standards declined; quotas limiting student numbers began to be placed on more and more faculties (Martin Report, 1964: I, 13; Australian Universities Commission, 1969: 19-20). The question of quotas will be taken up again later.

The number of potential higher education students—that is, the number of individuals staying on at secondary school to year 12 (we can ignore for the moment the small proportion of university entrants who qualify after having left school)—has increased steadily since the war. As table 2.2 shows, the absolute number of students in secondary schools has grown rapidly with the young population (increasing by 477 per cent since 1947, compared with 518 per cent for university students). By 1977, however, this growth had slowed dramatically, and in the following two years the overall number of secondary school students actually decreased. If this trend continues the implications for post-secondary education will be enormous. The increasing pressure on the universities due to population growth was greatly aggravated by the growing tendency for secondary school students to remain at school until matriculation rather than leaving at the end of compulsory schooling.

In 1964 the Martin Committee drew attention to the rising proportion of secondary school students continuing to year 12 and the matriculation examination (Martin Report, 1964: 28-32). In its *Sixth Report* the Universities Commission stated that 'whereas twenty years ago only one child in ten completed secondary schooling, the proportion is now one in three' (Universities Commission, 1975: 56). Between 1967 and 1977 the retention rate of secondary schools—the proportion of students commencing secondary school in a given year who remain until the final year of secondary school—increased by more than 12 per cent (see table 5.1).

This increase in school retention rates has coincided with a growing public awareness of the importance of high educational qualifications in an increasingly competitive labour market. At least until the graduate glut of the last few years, parents recognised that in a society becoming increasingly dependent on intellectual and technological expertise it was higher education that would give their children the greatest opportunities for social advancement; parents and the students themselves found their belief in importance of higher education as an avenue for upward mobility confirmed repeatedly as both Federal and state governments and their advisers reiterated the need to develop the nation's intellectual resources, particularly in science and technology, if Australia was not to lag behind the rest of the industrialised world in the quest for a technocratic utopia. The Murray Committee's report set the tone for much of what was to follow when it said:

The most urgent demand which is made of the universities of to-day is for the provision of sufficient graduates... The post-war community calls for more and more highly educated people all along the line, and in particular for more and more graduates of an increasing variety of kinds. Industry and commerce call for more graduates, government and public administration call for more graduates, and all the services of the welfare state call for more graduates. The proportion of the population which is called upon to give professional or technical services of one kind or another is increasing every day; and the proportion of such people who have to be graduates is increasing also. The whole machinery of modern society brings within the power of man many benefits and a spread of advantages which would never

Table 2.2
Number of secondary school students in Australia, 1947-81

<i>Year</i>	<i>Government</i>	<i>Non-government</i>	<i>Total</i>
1947	157,471	77,522	234,993
1948	158,717	79,546	238,263
1949	164,228	80,082	244,310
1950	173,925	82,749	256,674
1951	185,093	87,808	272,901
1952	197,299	92,718	290,017
1953	213,655	96,227	309,832
1954	226,607	101,362	327,969
1955	241,889	108,213	350,102
1956	264,883	117,754	382,637
1957	290,005	124,761	414,766
1958	319,551	139,294	458,845
1959	359,138	150,151	509,289
1960	397,282	156,097	553,379
1961	434,141	166,720	600,861
1962	466,633	174,512	641,145
1963	490,760	181,538	672,298
1964	537,376	194,709	732,085
1965	567,548	203,498	771,046
1966	593,383	207,395	800,778
1967	629,536	218,282	847,818
1968	664,131	225,724	889,855
1969	693,986	230,918	924,904
1970	719,381	236,829	956,210
1971	745,122	241,674	986,796
1972	773,286	247,131	1,020,417
1973	788,220	254,164	1,042,384
1974	801,801	261,084	1,062,885
1975	834,301	265,621	1,099,922
1976	848,238	269,911	1,118,122
1977	846,409	273,752	1,120,161
1978	837,233	278,145	1,115,378
1979	819,377	282,801	1,102,178
1980	810,038	290,430	1,100,468
1981	813,806	301,976	1,115,782

Source: For 1947-61, Martin Report, 1964: I, 17; for 1962-81, Australian Bureau of Statistics *Schools* bulletins.

have been thought to be possible in the past; but the price of all this is increasing complexity in every part of that machinery, and a world-wide shortage of graduates. (Murray Report, 1957: 7)

Similar sentiments were expressed in the reports of the Committee Appointed by the Minister for Education to Enquire into Various Aspects of Higher Education in New South Wales (Price Report, 1961: 40-1), the Committee for Development of Tertiary Education in Victoria (Ramsay Report, 1963: 8-12), and the Committee on the Future of Tertiary Education in Australia (Martin Report, 1964: I, 2-4, 9-10).

As we shall see, however, it is evident from the social background of higher education students that the social groups most aware of the advantages higher education offered and most inclined to seek it for their children were those which already had experience of it.

What is crucial for participation in tertiary education is that education is *perceived to be relevant* to the individual's circumstances and needs; with people from socially disadvantaged groups this is all too frequently not the case. Some of the studies discussed in the following chapters have found evidence that university education is something of a family tradition dependent on the transmission of attitudes and expectations from the older generation to the younger. Thus while there is no evidence that talent or intellectual ability is not equally distributed in all social groups, talented children from disadvantaged groups are much less likely than their advantaged peers to go to university. There is some evidence (Anderson, Batt, Beswick, Harman and Selby Smith, 1975) that potential students adjust their ambitions to what they regard as being *realistically possible* for them, and it is clear that many talented children from disadvantaged social groups are brought up with a very limited concept of their own potential. Especially in studies of achievement among school students the aspirations and expectations of parents for their children have been found to play a major role.

Government funding of higher education depends in part on the government responding to a demand which the government itself partially creates: one reason people became more determined to acquire a higher education for themselves and their children after the war was because the government repeatedly told them that was where the future lay. But a government can only finance expensive educational institutions such as universities if the national economy is healthy. It is no accident that the expansion of higher education since World War II has coincided with an expanding economy. This fact needs to be balanced against the widely accepted view, mentioned above, that higher education is necessary for economic expansion. It is not just a case of needing education to make money, but also of needing money to pay for education.

In economic terms the issue can be expressed as follows: higher education supplies the 'experts' or 'professionals' needed to bring about the economic conditions which make it possible for those who have the ability and the wish to acquire a higher education to do so. It is necessary to balance that ideology which proclaims the 'right to higher education for all' against the prosaic consideration of economic rationality. The Martin Report provides an interesting example here.

The Martin Committee saw no conflict between the educational aspirations of the individual and social or community needs, arguing that pursuit of the ideal of higher education for all who sought it should be pursued *as far as economic circumstances permitted*, since it would be to the advantage of both those individuals and society generally:

In Australia it is widely accepted that higher education should be available to all citizens according to their inclination and capacity. This provides opportunity for individuals to achieve their aspirations, and at the same time serves the needs of the community in creating an appropriate climate for a dynamic and advanced economy. It does not mean that the provision of higher education for all who have the desire and capacity for it should be pursued regardless of cost; but it does mean that it should be the objective towards which Australia should work. (Martin Report, 1964: I, 11)

While the committee recognised the possibility of conflict arising between individual aspirations for certain types of education and community needs, it did not allow itself to become troubled by it, adopting the laissez-faire position that 'in general, conflicts between students' aspirations and community needs should be allowed to be resolved by the operation of supply and demand in the market. Students' aspirations are not insensitive to the scale of remuneration and job opportunities in different callings' (Martin Report, 1964: I, 12). At the time the Martin Committee submitted its report

visions of unlimited economic growth through technological development were popular in both academic and government circles. It is understandable therefore that the Committee found it difficult to give serious consideration to a possible future in which there was an oversupply of graduates in almost all fields, a time when even qualified teachers, scientists and engineers could find no place for their skills in the economy.

Other government bodies have been less hesitant than the Martin Committee to place economic limits on the ideal of higher education for all able individuals. A number of publications supply evidence for the view that much of the educational idealism of the 1960s and early 1970s, with its emphasis on the right of individuals to self-development and advancement through education, was a moralistic gloss of the conviction that a technological society needs all the qualified people it can get. For example, the Committee for Development of Tertiary Education in Victoria stated in its 1963 report:

There are two inter-related reasons why we consider that some form of tertiary education must be made available to all those who qualify to undertake it. One is that we believe there is no foreseeable limit to the effective use that an intelligently ordered society can make of its human resources if they are educated to the limit of their potential. The other is that as citizens of our kind of democratic society we wish to confer on all our young people the right and the opportunity to be educated as fully as their proved ability justifies. (Ramsay Report, 1963: 8)

The Committee then went on to place its idealism on safe, practical grounds by adding 'we also believe that there is at any one time a limit to the number of those who can qualify to undertake such education'. Presumably the limit referred to is that of the abilities of prospective students, although cynics could be excused for thinking that it refers to limited educational opportunities resulting from government policies. But it is the order in which the ideas appear which is interesting:

1. Educated people are a resource of which society cannot get enough;
2. All people with the ability have a right to tertiary education;
3. There are not that many people with the requisite ability anyway.

The economic considerations which appear in official pronouncements concerning the individual's right to higher education need to be emphasised, not in order to accuse governments and administrators of hypocrisy, but to draw attention to the fact that in times of economic growth and optimism about the future, social idealism is a rather comfortable, undemanding affair which commands widespread support of a sort for which it cannot hope in times of hardship. In times of plenty governments can afford to be idealistic, and accordingly like to be seen to be so, but in more austere times those ideals are among the first things to be jettisoned in the name of economic realism.

Government departments whose function is economic rather than educational feel no embarrassment in measuring the value of education in economic terms alone. The following passage (*italics added*) from the report to the Organization for Economic Co-operation and Development by the Department of Labour and Immigration (1975) places an almost Machiavellian interpretation of Federal Government initiatives in higher education:

A recent area of increased Australian government activity, *because of manpower considerations*, has been in education, particularly the education and training of professional manpower. The Australian Government's entry into the sphere of tertiary education was undertaken at a time of existing and projected shortages in the supply and availability of skilled and professional manpower. Originally Australian Government grants to State and private educational establishments, particularly for science laboratories, were seen as a way of encouraging students into the areas of science and technology where shortages were expected to occur. On a much broader plane the Australian Government stimulated the expansion of tertiary education institutions, e.g. Universities and Colleges of Advanced

Education by the provision of finance and facilities, resulting in an increased flow of skilled professional manpower. This interest has expanded to the point where the Australian Government has now undertaken complete responsibility for finance and tertiary education. (Department of Labour and Immigration, 1975: 47-8)

No talk of individual rights here! Just hardheaded economic machinations. The interpretation is certainly extreme, but serves as a useful counter to any overly naive belief in purely idealistic motivation on the part of governments in educational provision.

A good indication of the changing mood of the times in regard to government finance for higher education is to be found in comments on the subject by the Tertiary Education Commission in 1978. In its *Report for 1979-81 Triennium* the Commission, which can hardly be regarded as having a narrow or harsh view of higher education or be accused of measuring its value solely in terms of cash return, found it necessary to demonstrate in its advice to the Government that it was not unaware of the harder economic realities to which educational provision had to be adjusted:

the provision of tertiary education has not simply been an open-ended response to student preferences. Manpower considerations influence the provision of tertiary places and many courses have been developed and modified specifically to meet the changing needs of industry and commerce. Restrictions on entry to expensive courses have been severe where student demand has run ahead of likely manpower requirements... While a common political objective has been to provide places for all those qualified students who wish to enter tertiary institutions, the main justification for expenditure on expensive training has been the community's needs for highly skilled manpower. (Tertiary Education Commission, 1978: 1, 26,29)

It can safely be said (as if anyone ever doubted it) that government funding of tertiary education is closely linked with government perceptions of its economic significance, and that until very recently it was widely believed that there would always be a need for still more highly qualified people. Visions of unlimited growth are not conducive to careful manpower planning or attempts to relate educational expansion to economic and industrial change. The unprecedented economic growth in Australia since the war explains the almost total absence of any form of manpower planning in that time.

In contrast to this belief, engendered by affluence, that paradise on earth was about to be constructed if only we could get enough people with university credentials, the crisis of the war had produced some attempts to develop a coherent, co-ordinated national manpower policy. When the Federal Department of Labour and National Service was established in 1940 it took over functions relating to manpower control which previously had been dispersed in a number of other departments; its responsibilities included the determination of 'general labour policy, manpower priorities, investigation of labour supply and demand', as well as 'research into labour questions, and co-ordination of Federal government plans for post-war reconstruction' (Department of Labour and Immigration, 1975: 15). The war even forced relations to be established between the universities, the Federal Government and contemporary reality. Nevertheless even in this critical time the universities retained a remarkable degree of autonomy in conducting their affairs, including those concerning students, manpower and 'the war effort':

In January 1942, the Department of War Organization of Industry called a conference of Vice-Chancellors and university representatives; in the following month the Minister for Labour and National Service was given power to direct universities to restrict student enrolments. This power, incorporated in Regulation 16 of the National Security (Universities Commission) Regulations, promulgated in February 1943, was successfully challenged by a student of the University of Sydney and declared invalid by the High Court of Australia. Despite this judgment, manpower regulations still enabled the authorities to call up a student for service in the armed forces or in other activities deemed essential. (Waddington, Radford and Keats, 1950: 154).

Recognition of the contribution many types of university education could make towards coping with the national emergency led to a number of faculties being declared 'reserved' faculties, which meant that all students permitted to enrol in them were excused from other forms of national service. Reserved faculties included medicine, science, engineering, dental science, veterinary science, and agriculture. Attempts to relate higher education directly to needs evident in the contemporary social situation continued after the war. Thus when the Commonwealth Office of Education—now the Commonwealth Department of Education—was established in 1945 under the Commonwealth Education Act its functions were defined as including a responsibility to 'advise the Minister of Post-War Reconstruction on matters relating to education'.

The word 'advise' points to one of the crucial difficulties of the problem of manpower planning: after the national emergency was over neither the Commonwealth Office of Education nor any other federal body had power to regulate university development in accordance with a detailed assessment of manpower needs, even had such an assessment been available, which of course it was not. As we have seen, the period of rapid economic expansion which began in the late 1950s produced a manpower 'policy' which amounted to little more than confident statements about unlimited growth, and it was this optimistic vision which had to serve the function of a rationale for the expansion of higher education.

In recent years the Federal Government has acquired more say in the extent and nature of university development by virtue of its increasing financial support of the universities, which culminated in 1974 when the Labor Government assumed full financial responsibility for tertiary education and abolished student fees. For good or ill, direct funding of the universities by the Federal Government—rather than through state government grants and revenue from fees—gave the Federal Government a powerful weapon with which to ensure that the universities' plans fitted the government's view of the future and that the advice offered by the Universities Commission was followed by them—if, that is, the government itself chose to heed the Commission's advice, which certainly has not always been the case, especially since 1975 when federal governments have issued financial 'guidelines' within which the education commissions must contain their recommendations.

The Universities Commission, which has been influential in shaping government policies regarding universities, has not ignored the problem of manpower planning when attempting to assess what the extent and direction of future development should be. Some of the areas in which the Commission has either undertaken or commissioned investigations of manpower needs are medicine, dentistry, health services, social welfare and high level management (Universities Commission, 1975: 24-7, 34, 105, 249, 360-1, 369-70). Discussing the findings of these manpower studies, the Commission stated (1975: 105) that it 'would expect that the universities will examine these reports and take them into account in their future planning'.

Unfortunately, even when manpower planning does occur it is by no means certain that reality will flow according to plan. Reality has a mind of its own, and the annoying habit of negating even the most careful predictions about the future. In the Tertiary Education Commission's *Recommendations for 1978* the (now) Universities Council found itself in the embarrassing position of having to revise plans for the development of medical education it had made only four years previously in the light of 'significant changes in projected population levels and major changes in arrangements for the delivery of medical services: estimates of future demands in teacher education had to be revised even more drastically' (Tertiary Education Commission, 1977: 54-5). It was no wonder then that in

its next report the Commission emphasised the fact that 'by its very nature manpower forecasting is bound to be imprecise and subject to wide margins of error' (Tertiary Education Commission, 1978: I, 30).

The report of the Committee of Inquiry into Education and Training expresses the view that while provision for post-secondary education must be related as far as possible to manpower needs and the future requirements of the economy, it cannot be denied that forecasting of manpower requirements remains an inexact science, to say the least. The Committee accordingly stresses the need for 'an increase in research on manpower forecasting and planning' (Williams Committee, 1979: I, 700) if it is to serve a useful function in connection with educational planning. In his submission on manpower planning to the Committee, Professor J. Niland concluded:

The weight of evidence against national level comprehensive manpower forecasts, particularly in the long and medium run but even sometimes in the short run, is so strong that it would be pure wishful thinking to imagine we could do better than other countries in this area. In point of fact our performance undoubtedly would be even less satisfactory, given that other countries have had a stronger tradition of comprehensive manpower policy, a better data base from which to work, and a much more substantial infrastructure of specialists to perform that work. (Williams Committee, 1979: II, 273)

At the same time, Niland felt that some types of short-term manpower forecasting were important enough to warrant urgent attention.

Earlier in this chapter we pointed out that the growth of university enrolments over the years does not necessarily give an accurate indication of the increased demand for university education, since enrolments are limited by the number of places available, which in turn is dependent on the resources and finance allocated. To determine the size of the demand for university education we have to consider not only the number of enrolments from year to year, but also the number of potential students wanting to enrol but who are unable to gain admission. Therefore some thought needs to be given to the number of unsuccessful applications for entry to university study and the operation of quotas, especially in the keenly contested 'professional' faculties.

In 1963 the Ramsay Committee in Victoria discounted the idea that quotas might be limiting enrolments, saying that 'some of them either have not been filled, or do not appear to have turned any students away' (Ramsay Report, 1963: 16). But since then, student pressure on universities has increased dramatically and the number of quotas imposed has grown accordingly. Until the early 1950s all qualified applicants were able to gain admission to the university course of their choice. The medical faculty at Melbourne was the first to introduce a quota which fixed the number of new students admitted each year, irrespective of the number of qualified applicants. Admission to a quota was determined by position in an order-of-merit list which ranked students according to their attainment in the qualifying examination. Despite increases in the number of places, by the mid-1960s most university faculties and many colleges of advanced education had quotas and large numbers of qualified applicants were unable to gain places in their preferred courses.

There was tremendous pressure placed on admissions procedures, particularly in the prestige professional faculties, because the universities were in effect administering a social competition. Competition for places in quotas caused students at school to choose subject combinations and study strategies which would maximise their quota scores (Anderson, 1964).

In its *Sixth Report* the Universities Commission wrote that 'Almost all universities now exercise some form of control over the level of new enrolments at the bachelor degree level, either by limiting the overall intake of students or by means of entry quotas in

specific faculties' (Universities Commission, (1975: 126). Further evidence of the extent to which quotas have been operative in recent times is contained in the 1973 report by the Australian Vice-Chancellors' Committee, *Quota Policies and Procedures in Australian Universities*. The Universities Commission emphasised (1975: 126) that grants to individual universities were calculated on the basis of a predetermined student load and that it expected the universities to ensure that actual enrolments did not exceed the predetermined figure. Comments by the Commission 1975: 127) on information regarding the number of applications for university admission from the admission centres in the various capital cities confirm that in recent years the demand for places has been well in excess of their availability:

The Commission has continued to examine information from the admission centres in Sydney, Melbourne and Adelaide on the number of qualified applicants not offered places and the number not offered their first course preference. . . . In general, the number of qualified applicants in 1973 was similar to that in the previous year while the proportion offered a university place was higher. In 1974, there was a sharp rise in the number of qualified applicants and a fall in the proportion offered a university place. However, in two States the proportion who received an offer, but did not accept it, rose. In general, there did not appear to be a significant number of students eligible for university entry who did not obtain a place in a tertiary institution in 1974. (Universities Commission, 1975: 127)

From this we may conclude that the number of qualified applicants unable to enrol in their preferred course of study in their preferred university has been considerable, but that fewer have been unable to enter a university at all, and fewer still have not been able to gain admission to either a university or college of advanced education. Since 1975 the demand for places has slackened as economic uncertainty and the oversupply of graduates in many fields are leading more potential students to reconsider whether a university education really will bring an attractive job with it.

College of Advanced Education Students

The increase in university enrolments presents only part of the picture of the expansion of higher education. The expansion of the college of advanced education sector has been even more pronounced. Unfortunately it is difficult to obtain uniform statistics relating to college enrolments before the late 1960s, when the college of advanced education system was instituted following the recommendations of the Martin Report and the Commonwealth Advisory Committee on Advanced Education began to collect information on a systematic basis. Part of the extremely rapid growth of the CAE sector has been due to the fact that previously existing institutions—such as senior technical colleges, teachers colleges, paramedical colleges, and agricultural colleges—were incorporated into the newly created system. Most of these older institutions were state-run, with traditions and methods of their own. The statistical records kept by them varied considerably in range and format. Table 2.3 shows figures collected by the Martin Committee on enrolments in 'courses with some tertiary content' in a variety of institutions in selected years from 1947 to 1962. ('Tertiary' here refers to what is called 'higher' education in this chapter, meaning courses which required a university standard for entrance and excluding technical and further education courses.) Table 2.4 shows enrolments in institutions recognised by the Commission as colleges of advanced education in 1965 and 1968 to 1979.

A number of comments need to be made concerning the figures in these tables. The most important point is that the total enrolments in 'courses with some tertiary content' at institutions other than universities shown in table 2.3 are much higher than the

Table 2.3
Total enrolments in courses with some tertiary content, 1947-62

<i>Institution</i>	<i>1947</i>	<i>1954</i>	<i>1959</i>	<i>1961</i>	<i>1962</i>
Universities ^a	30,476	29,374	47,545	57,672	63,317
Technical colleges	23,002	23,110	36,698	50,088	57,030
Dept: teacher training at teachers colleges	1158	6671	11,882	12,591	14,103
(at universities) ^a	(298)	(1703)	(3001)	(5558)	(5008)
Other teaching training	688	679	1009	1045	1210
Theological colleges	1255	1570	1966	2182	2407
Paramedical	698	1140	1326	1414	1488
Music	3300	2938	3325	3552	3777
Agriculture and forestry	411	519	676	709	746
Library	93	134	203	347	354
Other	4568	7932	11,349	10,073	10,613
Gross enrolment ^c	69,147	75,770	118,890	147,490	160,053
Net enrolment ^c	67,637	73,058	114,091	139,418	153,518
Gross enrolments other than at universities	38,671	46,396	71,345	89,818	96,736

^a University figures differ slightly from those shown for the same years in table 2.1. Such variations in figures according to source are the norm rather than the exception.

^b Also included in enrolments at universities.

^c Gross enrolment shows the number of students in each type of institution. Some students are enrolled in more than one type. Net enrolment excludes this double counting.

Source: Martin Report, 1964, I, 21.

Table 2.4
Enrolments in colleges of advanced education in Australia, 1965, 1968-81

<i>Year</i>	<i>Enrolment</i>	<i>Increase on previous year %</i>	<i>Ratio of undergraduates to 17-22 years age group %</i>
1965	24,330	—	2.0
1968	28,615	—	2.1
1969	31,949	11.7	2.2
1970	37,625	17.8	2.6
1971	44,468	18.2	3.1
1972	52,034	17.0	3.5
1973	61,575	18.3	4.1
1974	107,202	70.5	6.8
1975	122,557	17.8	8.9
1976	134,614	7.7	9.4
1977	140,312	5.4	9.6
1978	149,922	6.7	10.0
1979	155,667	3.7	10.2
1980	159,466	1.0	9.8
1981	162,749	2.1	9.6

Source: 1965, Commission on Advanced Education, 1975: 165, 1968-80, ABS *Colleges of Advanced Education* bulletins. Figures for 1981 are preliminary only.

enrolments in recognised colleges of advanced education: even in 1947 enrolments in courses with tertiary content outside universities stood at 38,671, compared with only 24,330 CAE enrolments as late as 1965. 'Courses with some tertiary content' is of course a much wider category than courses completely at the tertiary level; a large proportion of the courses included in table 2.3, while having some tertiary content, would not result in the student acquiring a tertiary qualification. At the same time, the college of advanced education system includes only those colleges accredited by the Commission on Advanced Education, and does not include all the institutions of all the types listed in table 2.4. That colleges are not included in the CAE system does not necessarily mean that they do not teach full tertiary level courses. Existing institutions are still being brought into the CAE system. Thus the 1976 CAE enrolments figures include students at seven non-government teachers colleges which previously did not have CAE status, but exclude another 1127 students at non-government teachers colleges which were still outside the CAE system.

The second major point concerning the tables is that the CAE enrolments given in table 2.4 are completely different from those given in the Universities Commission's *Sixth Report* (1975: 74). This is largely due to the fact that unlike the Universities Commission, the Bureau of Statistics has not included teachers college enrolments in its figures prior to 1973, when state teachers colleges acquired CAE status. Even including teachers college enrolments up to 1973, however, the figures do not match precisely, though the differences are probably small enough to be ignored. Some government departments are inclined to revise definitions from year to year making it inadvisable to attribute any precise significance to small differences in enrolments.

The inclusion of state teachers colleges in the CAE system in 1973 caused a dramatic jump in the total of CAE enrolments, from 61,575 in 1973 to 107,202 in 1974. Table 2.5 shows enrolments at state teachers colleges, as well as at non-government teachers colleges and in teacher training programs at universities and CAEs for the period 1969-73.

If we compare the CAE figures in table 2.4 with those relating to universities in table 2.1, we see that CAE enrolments have grown at a faster rate than those of universities in the same period and continue to do so. If we add teachers college enrolments to those of CAEs prior to 1973 we find that growth of CAEs relative to universities has still been quite rapid. In 1969 government teachers college and CAE students together totalled 49,280, while there were 100,295 university students. In 1980 there were 159,466 CAE students and 163,156 university students. Whereas in 1969 the ratio of university students

Table 2.5
Student teachers, by type of institution, 1969-73

Year	Enrolled at		Enrolled at government or private teachers college and also enrolled at		Not enrolled at teachers college but enrolled at		Total
	Government teachers college	Private teachers college	University	College of advanced education	University	College of advanced education	
1969	17,331	1425	11,615	1976	2265	77	34,689
1970	19,059	1829	12,651	2149	2904	487	39,079
1971	21,831	2034	12,987	1913	4793	1184	44,742
1972	23,714	2040	14,864	1946	5577	2973	51,114
1973	25,049	2576	14,812	2017	5932	4876	55,262

Source: ABS, *Teacher Education* bulletin, 1973.

to college students (including those in teachers colleges) was 2.2, in 1980 it was almost parity.

Much of the expansion of tertiary education in the last decade has been channelled from universities into the college of advanced education system. College enrolments continue to increase at a faster rate than those of the universities, rising by a total of 18.5 per cent between 1976 and 1980, compared with only 6.0 per cent for the universities. This is, of course, the result of policy and financial decisions rather than the simple operation of student preferences, which usually tend in the opposite direction. It is to be expected that the growth of college student numbers will be curtailed as teacher education intakes (more than 30 per cent of CAE enrolments in 1978) are reduced in response to the oversupply of teachers.

When the number of college students is added to that of university students the total represents a very sizable chunk of the population. The customary method used by the Tertiary Education Commission to obtain a measure of the extent of participation in higher education by the community has been to calculate the total number of undergraduate students in universities and colleges as a proportion of the 17 to 22 years age group of the population. The participation rates calculated in this way for the years 1975-79 range from 18.2 in 1975 to 19.4 per cent in 1980. However, this method of measuring participation is becoming increasingly unreliable.

Just what proportion of the Australian population enrolls in higher education? The 17-22 ratio distorts by not allowing for the uneven distribution within that age range—there are many more 17 and 18 year olds than 21 and 22 year olds, and by ignoring enrolments by older persons whose enrolment has been increasing (see chapter 3). Use of the 17-22 ratio to compare enrolments over time, between states, between institution, between faculties within a university, or between sexes, is misleading because participation by age varies with time, geography, institution, course and gender.

The correct way to express population participation rates is to compare the number of new students of each age—18, 19, 20, 21 — etc. with the number of that age in the population at the same time. In order to answer the question 'How many persons born in a particular year have enrolled in an Australian university by, say, age 30?', the ratios are aggregated for successive years. Persons born in 1934 for example could have enrolled at age 17 in 1951, 18 in 1952 and so on. By age 30 in 1979 5.8 per cent had enrolled. For the cohort born 10 years later in 1944 the enrolment by age 30 (in 1976) was almost double at 10.4 per cent (Table 2.6). This is considerably higher than the estimate based on the 17-22 age group.

Because the data are not available exact rates for colleges of advanced education cannot be calculated for persons born before about 1950. Recent rates, however, exceed those for universities and it is reasonable to conclude that the rate of enrolment in Australian higher education is currently between one-fifth and one-quarter of each generation.

Technical and Further Education Students

It is only in the last ten years or so that technical education has been combined with adult or further education for funding, administrative and statistical purposes. If, as Murray-Smith (1971: 313) puts it, 'Technical education has always been the "et cetera" part of education', how much more true is it of this latter day hybrid! Technical and further education students are twice as numerous as those in universities and CAEs. Although for many years non-vocational adult or further education has been carried out within technical colleges, it is only for vocational or technical studies that records of student numbers have been kept over a long period. Table 2.7 shows the number of technical education students in Australia from 1918 to 1971.

Table 2.6

Participation rates in Australian universities of persons born between 1934 and 1956

Year of birth	Per cent who had enrolled by age		
	21	25	29
1934	4.3	5.2	5.8
1936	4.8	5.9	6.4
1938	5.4	6.5	7.3
1940	6.7	7.8	8.5
1942	8.1	9.5	9.9
1944	8.7	9.9	10.4
1946	9.1	9.9	10.4
1948	8.8	9.6	10.0
1950	9.9	10.6	
1952	9.6	10.3	
1954	9.9		
1956	10.1		

Source: Population estimates provided by Dr Alan Hall, RSSS, Australian National University. Enrolments from ABS *Universities* bulletins.

Table 2.7

Number of technical education students in Australia, 1918-71

Year	Number	Year	Number	Year	Number
1918	51,802	1936	73,849	1954	168,923
1919	50,513	1937	81,702	1955	177,081
1920	62,036	1938	90,420	1956	n.a.
1921	64,562	1939	89,215	1957	205,225
1922	68,192	1940	93,566	1958	220,500
1923	72,080	1941	96,887	1959	224,937
1924	78,363	1942	87,634	1960	239,427
1925	81,619	1943	87,569	1961	281,237
1926	86,845	1944	100,209	1962	299,588
1927	90,075	1945	110,841	1963	322,169
1928	96,920	1946	133,938	1964	340,080
1929	95,680	1947	144,882	1965	360,755
1930	95,592	1948	150,482	1966	375,003
1931	63,449	1949	153,602	1967	376,915
1932	65,524	1950	161,564	1968	389,309
1933	65,949	1951	159,310	1969	398,578
1934	60,385	1952	169,089	1970	387,812
1935	67,377	1953	178,301	1971	395,893

Note: Figures for 1918-33 inclusive are for total enrolments rather than number of students, as they are for later years. Since a proportion of students were enrolled in more than one course, these early figures overstate the number of technical education students. The approximate size of this overstatement may be judged from the drop in numbers from 1933 to 1934, when the change to student numbers occurred. In 1951 and 1970 numbers are down due to the hiving off of some students to advanced education.

Source: Australian Commonwealth Year Books.

A comparison of these figures with those for university and college students explains why the Technical and Further Education Commission (now Council) has taken some pains in its reports to emphasise the size of the TAFE sector in terms of the number of students (and the corresponding neglect it has suffered in terms of finance):

Considered in terms of the absolute size of its student population, TAFE is by far the largest of the three major sectors of formal post-school education in Australia. Approximately half a million persons currently undertake some form of technical and further education during the course of a teaching year—or about twice the combined total in universities and colleges of advanced education. (TAFE Commission, 1976b: 39)

The Commission has also stressed the accessibility of technical and further education in comparison with the university and college systems, pointing out that it operates from more than 500 locations outside the capital cities. The diversity of vocational and non-vocational courses it offers also enables it to cater for a wide spectrum of the population:

The balance of course offerings differs from State to State. About 17 per cent of TAFE courses provide apprenticeship or related trade training and a large number of courses is offered in areas other than those customarily associated with the 'tech'. Large numbers of skilled vocational courses are provided for persons not indentured in a trade, including many certificate courses for prospective technicians and persons engaged in para-professional occupations, and a wide range of courses designed to supplement previous training or to provide specialised instruction in particular aspects of job skills. Other courses of growing importance in TAFE are those providing pre-vocational training to persons prior to their first entry into employment, and preparatory or bridging instruction to persons whose educational experience is not sufficient to permit direct entry to a chosen vocational course. The comprehensiveness of TAFE inevitably makes it a major provider of adult education courses of the personal interest, leisure or general enrichment kind. (Tertiary Education Commission, 1977: 158-9)

The figures collected by the TAFE Commission and Council for students in the whole range of TAFE courses give a more detailed picture of the sector's importance in terms of the number of people who participate in it. Table 2.8 shows the total TAFE enrolments according to stream of study between 1975 and 1980, while table 2.9 gives details of student numbers for 1980 according to stream and field of study.

The largest number of TAFE students are enrolled in the adult education stream, which includes 'all courses in home handicrafts, hobbies, self-expression and cultural appreciation'; next largest is the para-professional stream, followed by the 'other skilled' stream, which includes all skilled trade and vocational courses not included in the

Table 2.8
TAFE enrolments by stream of study, 1974-9

Year	Stream of study							Increase on previous year
	Profes- sional	Para- prof.	Trade apprentice- ship	Other skilled	Preparatory	Adult education	All streams	
1974	3042	146,770	130,541	97,447	85,563	146,579	609,942	—
1975	3357	149,599	133,135	117,401	96,466	162,448	662,406	8.6
1976	4838	155,606	130,638	139,189	101,773	205,512	737,546	11.3
1977	5226	159,816	141,573	149,298	106,924	222,152	784,989	6.4
1978	2512	165,592	119,050	192,265	117,296	242,231	838,946	6.9
1979	2549	176,833	125,381	200,160	123,454	243,312	871,689	3.9

Source: Tertiary Education Commission, 1978: II, 38, for 1974-7, and TEC, 1980: I, part iv, 47 for 1978-9.

Table 2.9
Total TAFE enrolments by stream and field of study, 1976

<i>Field of study</i>	<i>Stream of study</i>						
	<i>Profes- sional</i>	<i>Para- prof.</i>	<i>Trade apprentice- ship</i>	<i>Other skilled</i>	<i>Preparatory</i>	<i>Adult education</i>	<i>All streams</i>
Applied science	10	5032	—	708	6141	2092	13,983
Art and design	773	11,093	477	9095	2009	47,782	71,229
Building	50	9159	31,424	5533	754	16,325	63,245
Business studies	1443	72,538	26	49,739	6649	4063	134,458
Engineering	389	38,753	80,110	21,800	4873	7708	153,633
Rural and horticultural	15	5285	1512	7554	200	4466	19,032
Music	—	24	—	—	203	5265	5492
Paramedical	332	2739	409	416	158	78	4132
Industrial services	300	4847	9952	7262	644	17,505	40,510
Personal services	195	3441	6718	32,744	1698	23,928	68,724
General studies	1331	2695	—	4338	78,444	76,300	163,108
All fields	4838	155,606	130,628	139,189	101,773	205,512	737,546

Source: Tertiary Education Commission, 1977: 161.

apprenticeship category. Only the professional stream of technical and further education is a minor area insofar as numbers of students are concerned although resource use is relatively high. The other streams are each comparable to the university and college systems in terms of scale of operation. Between 1975 and 1980 TAFE enrolments increased by almost 40 per cent, a rate comparable with colleges of advanced education and well ahead of universities.

3 Age of Students

The age distribution of students can tell us a lot about the sort of people who are able to participate in higher education and those who are not by showing at what stage of their life they attend universities and colleges and how they fit the demands of study in with the more universal demands of work and family. On the face of it, it seems quite likely that there would be differences in the background of students who go direct from school to university or college and those who do so much later in life when they have family responsibilities, greater financial burdens and more personal commitment to their occupation. Changes in the age distribution of students will also be an indication of changes in the type of demand for places in tertiary institutions and the extent to which the institutions have been able to anticipate or adapt to those changes.

While the Commonwealth Bureau of Census and Statistics (now Australian Bureau of Statistics) has published data on the ages of newly enrolled university students since 1949, information on the ages of *all* university students has only been available since 1961. Table 3.1 shows the age distribution of full-time and part-time students since then. The changes already mentioned in the section on participation rates in the previous chapter are clearly apparent: over the years more and more students fall into the higher age groups as an ever greater proportion of places is taken up by people returning to study at a later stage of their lives rather than continuing direct from school. Between 1961 and 1980 the proportion of full-time students less than 23 years old decreased by almost 7 per cent, while for part-time (and external) students the decrease was more than 30 per cent. The effective increase in the age of the overall student population was diminished, however, by the fact that the size of the part-time and external sector of the university student population has decreased since 1961—this is discussed in chapter 9. Nevertheless, the extent of the change is striking, especially as it is remarkably uniform and therefore apparently independent of other changes, such as economic fluctuations, the development of the CAE system, and the abolition of tertiary fees. It suggests that this phenomenon of the increasing age of students is linked to some major process of social change that has continued unabated, and the most likely candidate is the ever increasing reliance of modern society on technology and high level expertise in all spheres, with the accompanying demand for qualified personnel. Even oversupply of graduates in many fields does not necessarily dampen this process, since it means that those with a qualification not in demand will return to study (usually part-time) for one that is. Thus some of the increase in student ages may be accounted for in terms of the efforts of qualified people to adapt to changing economic and social conditions. As long as society continues to change under the impact of technological development there will be mature age students wanting to gain qualifications in new fields. There will also be a heavy demand for people with higher degrees, therefore when considering the increased age of students the rapid development of postgraduate study since the war should not be forgotten. As table 2.1 tells us, the proportion of higher degree students in Australian universities rose from 1.6 per cent in 1950 to 13.1 per cent in 1981. Naturally this alone would shift the age distribution of students significantly upwards.

Table 3.1
Age distribution of full-time and part-time* university students in Australia
1961-80 (percentages)

Year	Age					
	Under 23 years		23-29 years		30 years or older	
	F/t	P/t	F/t	P/t	F/t	P/t
1961	84.3	50.1	11.8	26.4	3.9	23.5
1962	84.8	49.0	11.6	27.3	3.6	23.7
1963	85.1	48.5	11.5	28.1	3.4	23.4
1964	85.2	47.9	11.5	29.2	3.3	22.9
1965	85.5	43.2	11.2	31.4	3.3	25.4
1966	85.9	45.8	11.0	31.1	3.1	23.1
1967	84.3	42.6	12.2	32.6	3.5	24.8
1968	84.5	38.0	11.8	35.3	3.7	26.7
1969	83.9	37.5	12.1	35.7	4.0	26.8
1970	84.3	33.9	12.2	38.2	3.5	27.9
1971	83.8	31.1	12.5	39.5	3.7	29.4
1972	83.8	28.7	12.6	40.6	3.6	30.7
1973	83.4	27.5	13.1	41.1	3.5	31.4
1974	81.5	25.0	13.9	41.9	4.6	33.1
1975	80.0	23.2	13.6 ^a	36.7 ^a	6.4 ^a	40.1 ^a
1976	78.6	20.6	14.8	41.0	6.6	38.4
1977	78.0	19.8	14.9	39.4	7.1	40.8
1978	77.5	19.3	14.8	37.5	7.7	43.1
1979	77.8	19.0	14.4	36.4	7.8	44.6
1980	77.4	18.6	14.6	34.8	8.0	46.6

* For the years 1961-7 'part-time' excludes those studying externally; 1968-78 includes external students.

^a 1975 figures are for students aged 23-28 years, and 29 years or older.

Source: Based on ABS *Universities* bulletins.

In recent years it has been the policy of most universities to allow school leavers to defer enrolment for a year or more, in the belief that many prospective students would benefit from some experience of the wider world rather than continuing directly from school to university (Universities Commission, 1975: 123-4). While deferrals would marginally raise the age of new undergraduates if the practice became widespread, it would not affect the proportions in the age categories shown in table 3.1. The option of deferred entry is available mainly to school leavers, therefore those taking advantage of it would still be in the 'under 23' age group when they eventually enrol at university.

To summarise, there are two factors involved in raising the age of students: students are staying at university longer while they undertake work leading to higher degrees, and for a greatly increased number of older people that much bandied concept of continuing or lifelong education has become a reality.

A sharp difference in the age distribution of full-time and part-time students is perhaps what we would expect, but it is not as inevitable as all that. Certainly a part-time course takes longer to complete than a full-time one, but that by itself would have little effect on the proportion of students in the 30 years and over age bracket. Part-time status alone cannot account for the extent of the difference in age distributions. The important point is that not only do part-time students finish their courses later than full-time students who begin their studies at the same time, but many of them also first enrol at a much later stage in their lives. Some of those part-time students will be experiencing heavy demands

from career and family; for others the greatest of these demands will be over as they find themselves with more time and resources to spend on themselves for study purposes.

Differences also exist in the age distributions of male and female university students. More female than male students are under 23 years of age and more over 29, with male students falling more frequently in the 23-29 years age group. This difference is true of both full-time and part-time students. It is illustrated in table 3.2, which gives figures for 1972 and 1976-9. While the differences are slight (and more or less of the same order for full-time and part-time students), their constancy suggests something about the different factors affecting male and female participation in university study. The higher proportion of female students in the under 23 category and the lower proportion in the 23-29 years group is probably partly accounted for by the fact that far fewer women than males continue on to postgraduate study (this point is discussed in chapter 4). But also it is surely not just a coincidence that the age range of 23-29 years, in which male students

Table 3.2
Age distribution of male and female university students, 1972 and 1976-80
(percentages)

	Age		
	Under 23 years	23-29 years	30 years or older
1972			
Full-time male	80.7	16.7	3.6
Full-time female	89.5	6.9	3.6
Part-time male	26.7	43.6	29.7
Part-time female	33.3	33.6	33.1
1976			
Full-time male	77.5	17.1	5.4
Full-time female	80.3	11.2	8.5
Part-time male	19.7	42.7	37.6
Part-time female	22.2	38.0	39.8
1977			
Full-time male	77.3	17.0	5.7
Full-time female	79.0	11.7	9.3
Part-time male	19.5	40.9	39.6
Part-time female	20.4	37.0	42.6
1978			
Full-time male	76.9	16.7	6.4
Full-time female	78.6	11.8	9.6
Part-time male	19.6	39.4	41.0
Part-time female	18.9	34.8	46.3
1979			
Full-time male	77.2	16.3	6.5
Full-time female	78.5	11.6	9.9
Part-time male	19.7	38.1	42.2
Part-time female	18.1	34.1	47.8
1980			
Full-time male	76.8	16.5	6.7
Full-time female	78.2	11.8	10.0
Part-time male	19.1	37.2	43.7
Part-time female	18.1	31.7	50.2

Source: Based on ABS *Universities* bulletins.

predominate, is when the great majority of women have young children, which makes study virtually impossible for many of them. Similarly, the age span of 30 years and older is a time when, while men are usually well and truly committed to their occupation, many women find the demands of child-rearing decreasing, with consequent opportunities for study. On the basis of the limited information given in table 3.2 it appears that at present women are finding it easier than men to undertake university study in later years—and also, to judge from the increasing disparity between men and women in the 30 years and older group, that it is becoming more socially acceptable for them to do so.

Although there is no information available on this point, we would expect there to be a strong correlation between enrolment at university by mature women and high socio-economic status. Women in low socio-economic status families are much more likely to turn to paid employment than to study when freed from the demands of child-rearing.

The age distribution of college of advanced education students for the years 1970–80 is shown in table 3.3. As in the case of university students, their age has increased over the years, with fewer falling in the under 23 category and more in the 30 or older group. However, in the case of full-time students the figures have been virtually stable in the last few years. A comparison of tables 3.1 and 3.3 shows that college students tend marginally to be younger than those at university. This is accounted for by the fact that the proportion of postgraduates in the total student population is smaller in colleges than it is in universities. For example, in 1977, 8.7 per cent of college students were studying at a postgraduate level, compared with 11.7 per cent of university students.

If only undergraduate students are considered, college students in fact turn out to be slightly older than university students. Thus in 1976 63.9 per cent of college undergraduate students were less than 23 years old and 15.1 per cent were 30 years or older; in the case of students working for bachelor degrees at university, 68.1 per cent were less than 23 years old and only 12.8 per cent were 30 years or older. The pattern was similar

Table 3.3
Age distribution of full-time and part-time* CAE students in Australia,
1970–80 (percentages)

Year	Age					
	Under 23 years		23–29 years		30 years or older	
	F/t	P/t	F/t	P/t	F/t	P/t
1970 ^a	90.7	44.8	7.1	37.2	2.2	18.0
1971 ^a	88.8	42.8	8.3	38.3	2.9	18.9
1972	89.4	42.9	8.0	39.6	2.6	17.5
1973	88.4	n.a.	8.8	n.a.	2.8	n.a.
1974	86.3	38.9	9.2	39.5	4.5	21.6
1975	82.0	32.7	11.1	39.9	6.9	27.4
1976	80.8	28.6	11.7	40.5	7.5	30.9
1977	79.1	26.6	13.1	38.8	7.8	34.6
1978	79.1	24.8	12.9	37.3	8.0	37.9
1979	79.1	23.9	13.0	36.9	7.9	39.2
1980	79.9	21.6	11.3	29.1	8.8	49.3

* The 1970–2 'part-time' excludes those studying externally; for later years it includes them.

^a Figures for 1970 and 1971 exclude Queensland students.

Source: Based on ABS *Colleges of Advanced Education* bulletins.

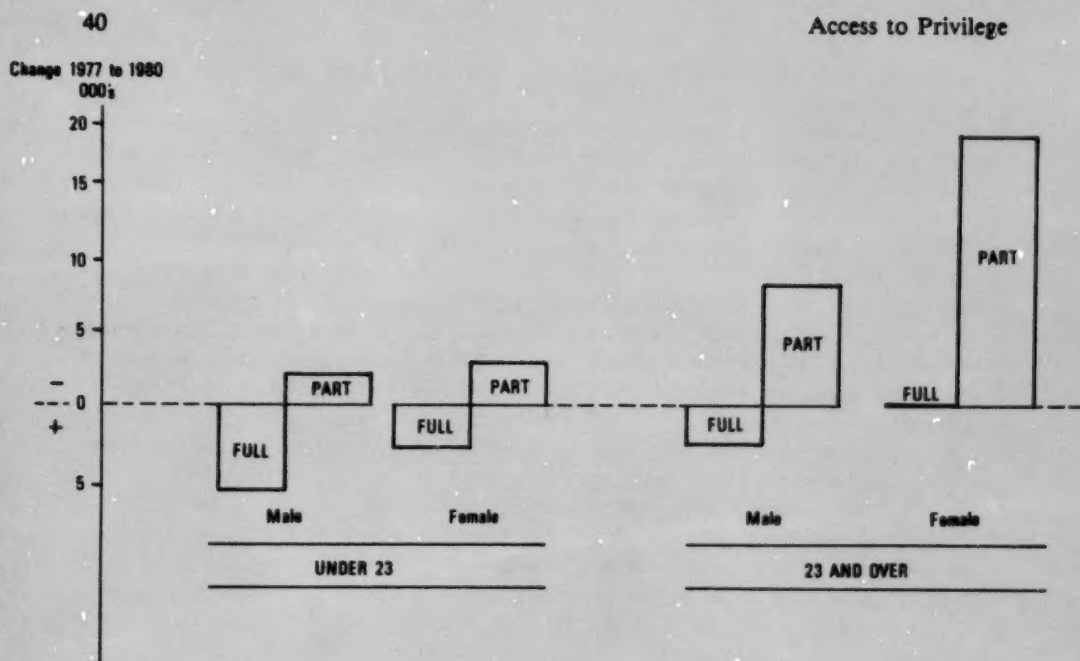


Fig. 3.1 Students at universities and colleges of advanced education 1977 and 1980: changes in age, sex and type of enrolment. From Tertiary Education Commission Report for 1982-84, Vol. 1, pt 1, p.40.

in 1978: 59.2 per cent were 30 years or older, while 66.0 per cent of bachelor students at university were less than 23 years old and only 15.5 per cent were 30 years or older.

As far as students working for their first degree are concerned then, those in colleges of advanced education are more likely than those in universities to be of an age which indicates that they have not gone directly from school to tertiary education, but rather have spent some years either in the workforce or bringing up children. The reasons for this are more likely to be complex than simple. Those committed to university elitism will be quick to point out that entry to university has been more competitive than entry to the colleges, and suggest that the extra study difficulties faced by mature students will result in lower matriculation results which will make it difficult for them to win a university place. There may be some truth in this. But of course not all students who begin tertiary study relatively late in life will also have studied for the matriculation examination years after leaving school. Furthermore, the open admission policies being developed by some universities and colleges for mature age students make the factor of competitive entry less relevant. Therefore it seems reasonable to conclude that some older students prefer studying at college rather than university, probably because many of the courses offered are of a more directly vocational nature which make them attractive to those with work experience and financial responsibilities.

It should be emphasised, however, that the differences in age distribution of university and college students are slight compared with those which exist between full-time and

part-time students in both types of institution. In terms of age full-time college students are much more like full-time university students than part-time college students.

As far as the age of students coming from particular social groups is concerned, Anderson, Boven, Fensham and Powell (1978) produced evidence that students of high socio-economic background were likely to commence higher study at a younger age than those of lower socio-economic status. Of those beginning university courses in 1976 who were less than 22 years old, 36.7 per cent had fathers educated to a tertiary level, while 39.8 per cent had fathers with less than four years secondary schooling; for those who were 22 years or older the proportions were 27.0 and 55.6 per cent respectively. The situation with respect to father's occupation was similar: 36.8 per cent of those less than 22 years old had fathers who were professionals, while the fathers of 17.2 per cent were manual workers; for students 22 years or older the corresponding proportions were 24.6 and 26.0 per cent. In relation to father's income the age differences were of the same order, with fathers of young commencing students tending to earn more than those of older students: 19.5 per cent of the fathers of those less than 22 years old had incomes of more than \$16,000, while 36.1 per cent earned less than \$8000. For students 22 years or older the corresponding proportions were 9.8 per cent and 40.3 per cent (Anderson *et al.*, 1978: 136-7. Percentages have been recalculated to exclude the 'no response' category.) Similar differences were found in the age distribution of CAE students of high and low socio-economic status.

The same study also found that the age distribution of students entering university or college varied according to their country of origin. On the whole Australian born university students were young compared with those born overseas, making up 82.7 per cent of the under 22 years group but only 68.9 per cent of older students. On the other hand, those born in the United Kingdom, Eire or New Zealand represented only 6.3 per cent of students less than 22 years old but 15.8 per cent of those 22 years or older, and those born in Europe composed 2.9 per cent of the younger but 7.1 per cent of the older university students. The only group of foreign born students better represented among younger than among older students were those born in Asian countries (4.8 per cent of the younger group and 4.0 per cent of older students). The situation in colleges of advanced education was similar, except that there Asian born students too were much better represented among older than among younger students (Anderson *et al.*, 1978: 140. Percentages recalculated to exclude 'no response' category.)

On the age distribution of technical and further education students information has only recently started to become available. TAFE students have yet to be deemed worthy of receiving the attentions of the Australian Bureau of Statistics that lead to annual statistical bulletins of the sort published on university and college students, though the TAFE Commission (now Council) now maintains basic statistical records.

Table 3.4 shows the age distribution of TAFE students in 1980 according to stream of study. Unfortunately the age categories used for the collection of TAFE statistics are not the same as those used for university and college students, but they are nevertheless close enough to allow some comparisons to be drawn.

As we would expect, the age distribution of TAFE students varies widely according to stream of study. In 1980 more than 90 per cent of basic trades students were less than 21 years old, compared with fewer than 15 per cent of adult education students. The age distribution of students in the only stream which offers courses comparable to university or college courses—the professional stream—is similar to that of part-time university and college students. To a lesser extent this is also true of TAFE students in the para-professional stream.

Table 3.4
Age distribution of TAFE students 1980 according to stream (percentages)

Stream	Age			All ages
	Less than 21 years	21 to 29 years	30 years or older	
1. Professional	22.7	36.6	40.7	100
2. Para-professional	30.3	38.2	31.6	100
3. Trades: basic	91.9	6.5	1.6	100
post-trade	31.4	40.0	28.6	100
4. Other skilled	32.7	28.9	38.3	100
5. Preparatory	45.6	26.7	27.7	100
Total 1-5	45.6	27.3	27.1	100
6. Adult education	14.2	30.4	55.4	100
Total 1-6	37.1	28.2	34.7	100

Source: Commonwealth Tertiary Education Commission.

Conclusions

If, as seems reasonable, we can assume that the great majority of people would choose to undertake higher study early in life rather than later, when they will be less likely to be able to devote undivided time and resources to it, there are a number of conclusions that can be drawn from the facts relating to the age distribution of higher education students just described.

The age of students serves as a rough index of their aspirations, and the slow, steady rise in their age distribution over the years is an indication of the increasing determination with which higher education has been pursued in an era when it has seemed to both individuals and governments the key to a rosy future. Not only did those who went into higher education direct from secondary school stay at university or college longer in pursuit of higher qualifications, but also increasing numbers of those who for some reason were unable to begin study when they were without other commitments have thought it worth their while to put up with the extra difficulties of mature age study. Of course there will also have been those who at the time of leaving school had no inclination to study at a higher level and whose later beginnings are therefore due to later development of aspirations rather than to early aspirations frustrated by personal circumstance. If all mature age enrolments represented late opportunities for study being seized by those prevented from enrolling earlier by difficulties such as lack of finance or family responsibilities, we would expect the correlation between greater age and lower socio-economic status to be tighter than in fact it is. It seems likely that early opportunities spoiled through lack of interest and underachievement at school is at least as important a factor in the background of older students.

As we have seen, students of low socio-economic background tend to be older than those whose families are better off. However, to explain the difference in economic terms while ignoring possible attitudinal variations would be a mistake. For instance, results of the study of mature age entrants at Monash University concerning their reasons for coming indicate that for every older entrant whose early high aspirations had been frustrated by personal hardship, at least two others had never considered undertaking tertiary study while at school. When discussing reasons for their lack of interest when young, most cited the social mores of the time (especially via family attitudes) as the underlying cause (Hore and West, 1980: 118).

Since people with family or job responsibilities who wish to undertake a tertiary course can usually only afford to do so on a part-time basis, it is hardly surprising that part-timers tend to be much older than full-time students. Indeed, these two groups—mature students and part-timers—are almost interchangeable. While the social background of mature age entrants has not received much attention in its own right, that of part-time students is reasonably well documented. As we shall see in chapter 9, compared with full-time students, part-timers are more likely to come from low socio-economic status families, be of migrant origin, and have attended a public rather than a private school. Some of these factors—migrant background is the best example—are associated with peculiarities of circumstance likely to frustrate high educational aspirations rather than with aspirations which in themselves are low, while others, such as attendance at a government school, are probably more closely connected with a relatively low level of aspiration. Taken together, they give us some understanding of the differences between mature age higher education students and those who continue to higher institutions direct from school.

4 Women

Sex is a reassuring topic to write about in connection with post-secondary students, not so much because it is a subject guaranteed to arouse the reader's interest as because there is no controversy in the research findings concerning it. Olympic athletes notwithstanding, sex classifications in themselves are clearcut, and commentators are unanimous in their interpretation of the data: participation by women in higher education has increased considerably over the years and is approaching parity.

However important it may be, the general observation that more women than ever before are studying in post-secondary institutions tells us very little. It is only by examining the finer details of this overall trend that we are able to achieve some understanding of the factors affecting educational participation by women and the social issues and implications arising from them.

School Leavers and the Transition to Higher Education

The forces which, until recently, have led to low participation by women in the upper reaches of education, operate from the beginning of schooling and even earlier. The ways in which attitudes which work against educational aspiration and achievement among girls are inculcated through the combined effects of tradition, popular culture, the mass media, and initial school experiences have been documented in a barrage of recent reports, most of which have been sponsored by the federal or state governments (see Victorian Committee on Equal Opportunity in Schools, 1977: i-ii). It is in the final years of schooling and transition to higher education that the results of long years of socialisation for sex roles are most clearly visible.

In the period since World War II, and probably at least during the 1930s as well, it has been the tendency for girls to participate less in secondary education than boys. Leaving school at a younger age, girls have been less likely than boys to continue to the final years of secondary school and therefore have been less likely to qualify for entry to a higher institution. However, in the last ten years especially more and more girls have stayed on at school, and in 1977 participation rates for girls aged 15, 16 and 17 years were higher than for boys.

Table 4.1 shows the participation rates for males and females aged 15 to 18 years in Australian schools for selected years between 1911 and 1980. The figures show a strong trend until 1978 for both sexes to stay longer at school, but also the rapid gains relative to males made by females since the mid-1960s. Another point about the table which also merits emphasis is that 1977 was not the first time that a greater proportion of girls than boys of the same age stayed on at school: in 1911 and 1921 there were more girls than boys aged 15 years and over at school. It was between 1921 and 1933 that the proportion of girls aged 15 years or more at school decreased while the proportion of boys of that age continued to increase, apparently uninterruptedly, until peaking in 1972. While it is difficult to account for these shifting trends, it is sufficient to note here that the figures show that increasing participation by girls in senior secondary school is neither inevitable nor irreversible—a fact which in the light of developments in the last decade is perhaps

Table 4.1

School students* aged 15 to 18 years as a percentage of the Australian population^b of the same age and sex, 1911-80

Year	Age							
	15 years		16 years		17 years		18 years	
	Male	Female	Male	Female	Male	Female	Male	Female
1911	18.6	22.2	9.8	12.8	5.4	6.7	3.3	3.7
1921	23.8	26.5	13.5	15.9	8.5	8.7	4.9	3.9
1933	30.4	25.8	16.8	14.2	9.5	7.0	5.1	3.0
1954	44.7	40.5	20.6	17.7	11.5 ^c	6.5 ^c	n.a.	n.a.
1958	56.5	49.6	27.7	22.3	16.1 ^c	9.1 ^c	n.a.	n.a.
1961	65.3	56.5	34.6	26.3	14.9	8.8	5.5 ^d	1.8 ^d
1966	75.2	69.7	46.4	37.6	21.2	13.4	6.8 ^d	2.6 ^d
1967	77.6	72.2	48.9	39.7	27.2	18.7	n.a.	n.a.
1968	79.4	75.9	52.7	43.7	28.9	20.8	n.a.	n.a.
1969	80.8	76.8	54.1	46.2	30.7	22.6	n.a.	n.a.
1970	82.5	78.5	54.8	47.4	31.7	23.7	10.1	5.1
1971	83.2	79.8	57.7	49.5	32.8	24.8	11.8 ^d	5.8 ^d
1972	83.7	81.0	57.3	50.9	34.0	26.5	12.4 ^d	6.3 ^d
1973	83.4	81.1	56.5	52.2	32.3	27.6	9.6	5.7
1974	81.5	81.0	55.2	51.3	31.4	27.7	8.2	5.1
1975	85.0	83.9	56.7	55.0	31.4	29.0	8.1	5.4
1976	86.1	85.4	58.6	57.9	31.7	31.1	7.9	5.7
1977	85.7	86.4	58.0	59.2	31.4	32.7	7.5	6.2
1978	87.1	87.3	58.3	60.4	31.0	33.2	7.3	6.3
1979	87.0	88.4	57.8	60.0	30.3	33.3	7.2	6.4
1980	86.7	88.6	56.1	59.4	28.2	31.1	6.0	5.5

* For the years 1911, 1921, and 1933 the category of students educated at home has been included.

^b Population estimates at 30 June have been used for all years except 1911, 1921, 1933 and 1971, for which census figures are used.

^c For 1954 and 1958 students 17 and over are shown as percentages of the 17 years age group.

^d For 1961, 1962, 1971 and 1972 students aged 18 years and over are shown as percentages of the 18 years age group.

Source: For 1911-66, Study Group to the Schools Commission, 1975: 171; for 1967-80, ABS *Schools* bulletins.

easy to forget. It is difficult to say what will be the long-term significance of the decrease in participation evident for both sexes in 1979 and 1980.

The rapid improvement in participation by girls compared with boys in the final years of secondary school is also demonstrated by table 4.2, which shows the retention rates (the proportion of students entering secondary school in a given year who continue through to the final year) for boys and girls in Australian secondary schools between 1967 and 1980. One striking fact shown by the table is that whereas retention for boys in public schools has dropped by 6 per cent since peaking in 1972, for girls since then it has increased by 7 per cent. In 1975, for the first time in many years, a greater proportion of girls than boys continued through to the final year of schooling in public schools, though not in Catholic or other private schools. In 1976 the trend continued and the margin in public schools was sufficient to make the retention rate for girls greater over all schools. Retention for girls continued to increase until 1979, when it faltered, but whether this is the beginning of a new trend remains to be seen. Only in Catholic schools does the traditional pattern of male dominance in the senior years survive, but there the retention rate for girls is continuing to increase rapidly.

The official statistics have been supplemented by the results of a number of studies of school leavers. A study entitled *Matriculation—and After* (1961) carried out by the

Table 4.2
Rate of retention to year 12 of Australian secondary schools, 1967-80, by sex

Year	Public			Catholic			Non-Catholic private			All schools		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
1967	21.1	15.4	18.4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	26.5	18.7	22.7
1968	22.9	17.7	20.4	n.a.	n.a.	27.5	n.a.	n.a.	76.3	28.5	21.2	25.0
1969	25.4	20.4	23.0	37.8	22.8	29.7	92.5	65.6	78.5	31.1	23.7	27.5
1970	27.3	22.0	24.8	39.3	24.9	31.6	94.0	68.4	80.6	33.0	25.5	29.3
1971	28.4	23.1	25.9	41.7	27.1	33.9	93.3	70.9	81.7	34.1	26.9	30.6
1972	30.2	24.8	27.6	41.7	29.3	35.2	94.6	78.3	86.5	35.7	28.9	32.4
1973	29.2	26.6	27.9	44.1	32.0	37.7	95.1	80.9	88.0	35.2	30.8	33.1
1974	27.6	26.9	27.3	44.6	34.1	39.1	94.4	86.1	90.3	34.1	31.6	32.9
1975	28.4	28.8	28.6	45.9	36.4	40.9	89.6	86.7	88.2	34.6	33.6	34.1
1976	28.6	30.7	29.6	44.9	38.5	41.5	90.5	87.1	88.9	34.6	35.3	34.9
1977	27.8	31.9	29.7	46.0	40.7	43.2	87.6	87.5	87.6	34.0	36.6	35.3
1978	27.0	32.3	29.6	44.4	42.0	43.1	83.8	87.4	85.5	33.1	37.3	35.1
1979	26.1	31.9	28.9	44.9	44.0	44.5	85.8	88.5	87.1	32.4	37.2	34.8
1980	25.2	31.9	28.4	45.6	44.1	44.8	86.4	89.5	87.9	31.9	37.3	34.5

Source: Australian Department of Education.

Commonwealth Office of Education and ACER found that 62 per cent of the 11,144 Australian matriculants in 1957 were male, with the proportion of females varying from 35 per cent in South Australia to 41 per cent in Tasmania. Although South Australia had the lowest proportion of female matriculants it had the highest proportion of female matriculants proceeding to university: 73 per cent, compared with only 43 per cent in NSW. In all states the proportion of female matriculants continuing to university was lower than that of males, with the disparity being greatest in NSW (25 per cent) and lowest in South Australia (5 per cent). On the other hand, more female than male matriculants in all states proceeded to full-time study other than at university (Commonwealth Office of Education, 1961: 23).

The ACER study of the 1959-60 school leavers in Australia (Radford, 1962) also showed that while in all states boys tended to stay at school longer than girls, there were significant differences from state to state in the extent of the disparity between the sexes. Particularly interesting were the results for Queensland which showed that while in the junior years of secondary school more boys than girls of the same age left school, the situation was reversed at the age of 16 years (the approximate age of entry to the senior secondary school) with more girls leaving soon after turning 15 than boys (Radford, 1962: 10).

Of the 17,281 students in the ACER sample who remained to matriculation level, 45 per cent were girls (7 per cent more than reported in *Matriculation—and After*). Of those 17,281 students, 58 per cent enrolled in full-time study after leaving school, slightly less than half (48 per cent) of whom were girls. But there was a big variation in the proportion of female entrants to the various types of institutions, ranging from only 36 per cent of university entrants to 64 per cent of senior technical college (CAE) entrants and 72 per cent of teachers college entrants.

As we would expect, the subsequent ACER study of the 1971-2 school leavers showed an improvement in the participation by girls in the final years of schooling, though they still tended to leave school at a younger age than boys. There were also significant changes in the proportions of female entrants to the different types of higher institutions: the proportion of female entrants to universities rose to 42 per cent and at teachers colleges increased slightly to 73 per cent, while at senior technical colleges it fell to 58 per cent. Therefore a greater proportion of female matriculants than 12 years previously were successfully competing with males for university places (Radford and Wilkes, 1975: 69-75).

In Western Australia Dufty (1972) analysed statistics relating to students qualifying to enter higher institutions in 1970 and 1971. He found that while the majority (58 per cent) of students in the final year of secondary school in 1971 were male, a greater proportion of female than male students matriculated and continued to higher education—59 per cent compared with 53 per cent. Having reached the final year of secondary school, therefore, a girl was more likely than a boy to undertake higher study. Nevertheless, it was only at teachers colleges that female students actually outnumbered males: 77 per cent of teachers college entrants were female, whereas 31 per cent of entrants to the University of Western Australia and only 28 per cent of entrants to the Western Australian Institute of Technology were female (Dufty, 1972: 236-9).*

* Lewis (1976) in follow-up work to the ACER study of achievement in science also reconfirmed the fact that university entrants are predominantly male. However he found that for all other institutions except CAEs in NSW females predominated, especially in teacher education but also in TAFE. The results for TAFE may be explained by the fact that the ACER sample was of year 12 students (in 1970) only—the majority of male students entering TAFE do not remain at school to year 12 (Lewis, 1976: 23).

The concentration of female higher education students in teacher education noted by Radford and Duffy (and Lewis) has also been observed in a number of other studies, including the Regional Colleges Study (Anderson *et al.*, 1975). In the survey of 5000 matriculation students carried out as part of that study it was found that although girls consistently underrated their academic ability, they tended to perform better in the matriculation examinations than boys. Not only did a greater proportion of girls than boys before matriculating *expect* to make the transition to higher education, but a greater proportion in fact *did* so (82 per cent of the girls compared with 76 per cent of the boys). However, while 79 per cent of students who entered teachers colleges were female, in the case of universities the proportion was only 44 per cent (Anderson *et al.*, 1975: I, 345-69).

This strong movement of female matriculants into teacher education suggests that participation by women in higher education has not been as 'equal' as the figures indicate, since for a large number of women higher study has been limited—by attitudes rather than regulations—to teacher training, especially primary teacher training.

Women at University

The authors of the Australian *Commonwealth Year Book* for 1907 included a couple of footnotes to the effect that in 1906 the 1054 students at the University of Sydney included '142 females', and that Melbourne University's 853 students included '233 females'. That the reader's attention needed to be drawn to this exceptional state of affairs by means of footnotes says much about contemporary attitudes to women undertaking university studies. Seventy-five years later, in 1981, 42.7 per cent of the 160,035 university students in Australia were women. So although the proportion of female university students has increased over the years—a trend which at present shows no signs of fading—there is still a considerable way to go before there are as many women as men at university, particularly at higher levels.

Table 4.3, which gives the actual percentage of female students studying for higher degrees and bachelor degrees as well as the proportion of females in total university enrolments since 1949, shows that this increasing participation by women has neither been uniform nor occurred at a regular pace. Considering all enrolments first, we find that the proportion of females decreased in the early 1950s, and in 1954 was still less than in 1949; it then crept hesitatingly upwards in the late 1950s before gaining a bit more upward momentum in the 1960s and more still during the 1970s, when the average rate of annual increase had been more than 1 per cent. The patterns for bachelor degree enrolments and higher degree enrolments are somewhat different, though they share an accelerating participation rate during the 1970s. The increase in female bachelor degree enrolments hesitated only briefly in 1957 and 1961, otherwise the rise has been fairly steady. Female higher degree enrolments, on the other hand, slumped in the early 1950s, rose, then hiccupped a couple of times during the 1960s before beginning to climb strongly in the early 1970s.

It is clear from table 4.3 that except for 1949 the proportion of female higher degree students has consistently been lower than the proportion of female bachelor degree students. Not only that, the growth of the number of women studying for higher degrees has failed to keep pace with that of the female undergraduate population: whereas in the early 1950s the difference between the proportion of female higher degree students and female bachelor degree students was 7 or 8 per cent (and increasing), in the late 1960s it rose well above 10 per cent and throughout the 1970s remained at a steady 15 to 16 per cent. Compared with men, therefore, women have become more likely to leave university after obtaining their first degree.

The different participation rates for women in higher degree and undergraduate study

Table 4.3

Women as percentage of student population in Australian universities, 1949-81, for higher degree, bachelor degree, and all* enrolments

Year	Level of enrolment		All enrolments
	Higher degree	Bachelor degree	
1949	18.2	17.9	21.4
1950	12.1	18.3	21.6
1951	12.1	18.9	20.0
1952	11.6	19.1	19.7
1953	11.7	20.0	20.8
1954	9.5	20.8	21.3
1955	10.0	21.3	21.9
1956	11.5	21.6	22.1
1957	11.5	21.4	21.9
1958	11.7	21.7	22.1
1959	12.6	22.2	22.6
1960	13.1	22.8	22.8
1961	14.7	21.8	23.2
1962	14.5	22.9	24.2
1963	15.4	23.8	24.9
1964	15.4	25.0	25.9
1965	15.1	25.9	26.4
1966	14.2	27.1	27.4
1967	15.8	27.5	27.7
1968	14.8	29.6	28.6
1969	15.8	30.5	29.0
1970	16.5	31.8	29.9
1971	17.2	33.5	31.5
1972	18.5	34.5	32.7
1973	18.8	34.6	33.7
1974	20.6	36.2	35.3
1975	21.8	37.7	36.6
1976	23.2	39.2	37.7
1977	24.4	40.2	38.8
1978	25.8	41.4	39.9
1979	27.0	42.5	40.8
1980	28.0	43.6	41.8
1981	29.2	44.6	42.7

* Includes post-graduate, diploma, sub-graduate diploma, certificate and other non-degree enrolments.

Source: Based on ABS *Universities* bulletins. Figures for 1981 are provisional only.

give support for the view that, wherever you find a hierarchy in education you will find women at the bottom of it. This tendency for participation by women to decrease as we go up the educational ladder may be seen within the higher degree category itself, and also in the university staff hierarchy. Table 4.4 shows the proportion of female Masters and Ph.D students at Australian universities between 1961 and 1980, together with the proportion of academic posts of various levels occupied by women between 1961 and 1980. The same information is shown in figure 4.1. The shrinking participation rates for women at the higher levels of the educational pyramid could not be clearer.

Field of Study

It can be assumed that the single most important factor influencing enrolment by women at any individual institution is the type of courses being offered by that institution. Some fields of study have attracted far more attention from female students than others, and while most fields have witnessed substantial increases in the proportion of female

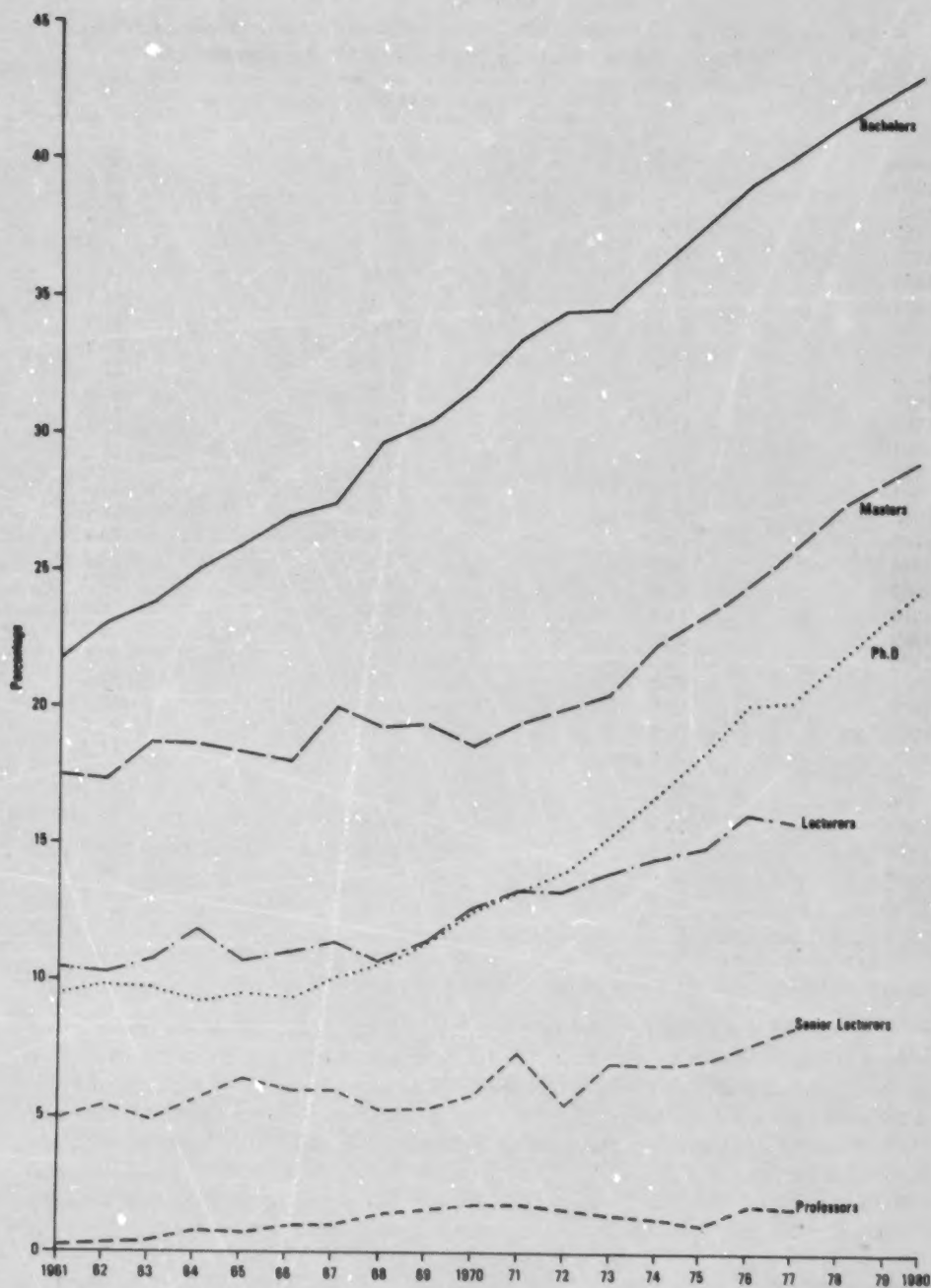


Fig. 4.1 Proportions of bachelor and higher degree university students and academic staff of various levels who are women, Australia, 1961-80.

Table 4.4
Proportions of Masters and Doctoral students who are women and proportions of full-time university staff* of various levels who are women, 1961-80 (percentages)

Year	Students		Lecturer	Staff	
	Masters	Doctorate ^a		Snr Lecturer	Professor
1961	17.5	9.5	10.4	4.9	0.3
1962	17.3	9.8	10.2	5.4	0.3
1963	18.7	9.7	10.8	4.9	0.5
1964	18.7	9.3	11.8	5.7	0.9
1965	18.3	9.5	10.7	6.4	0.8
1966	18.1	9.4	11.1	6.0	1.2
1967	20.0	10.1	11.4	6.2	1.2
1968	19.3	10.6	10.7	5.3	1.5
1969	19.4	11.6	11.4	5.4	1.7
1970	18.7	12.6	12.7	5.8	1.8
1971	19.5	13.1	13.2	6.7	1.8
1972	20.0	14.0	13.3	5.5	1.7
1973	20.6	15.3	14.0	6.9	1.5
1974	22.3	16.8	14.6	6.9	1.4
1975	23.3	18.3	14.9	7.1	1.2
1976	24.5	20.2	16.3	7.7	1.8
1977	26.0	20.4	16.1	8.3	1.7
1978	27.5	21.8	17.2	8.5	1.6
1979	28.6	23.2	17.9	8.6	2.1
1980	29.8	24.0	19.0	8.3	2.1

* 1961-70 staff figures are for those employed full-time in 'teaching and research' and exclude those doing research only. That research is one of the activities of teaching staff is taken for granted in the definition used in 1971-7, which is those employed full-time in teaching.

^a Includes doctorates other than Ph.Ds.

Source: Based on ABS *Universities* bulletins.

students, some have remained heavily male-dominated. The outstanding example here is engineering and technology, which in 1980 still had a proportion of only 4.6 per cent female students. This wide variation in the female participation rate from faculty to faculty (shown in table 4.5) makes direct comparison of individual institutions rather pointless unless it is done on a faculty by faculty basis. Nevertheless, table 4.6 gives some idea of the different rates of participation by women in a number of Australian universities, while table 4.7 shows the variation in the proportion of female students in selected faculties at a number of universities in a given year.

It is clear from table 4.7 that even in a given faculty the proportion of female students can vary substantially across universities. The range of courses offered by the faculty, the alternatives offered by other faculties in the same university, as well as the choice of institutions available, all help to determine in which faculty any student, male or female, will enrol. This makes it impossible to draw any conclusions from the variation in participation rates regarding social values and possible differences in attitudes towards women and education in the different parts of Australia. Nevertheless we can deduce something about the nature of those attitudes from table 4.5 which shows that women have moved into various fields of study at different speeds and to different extents. It seems safe to assume that the speed and extent to which women have moved into a particular field of study gives a measure of how socially acceptable female participation in that field is

Table 4.5
Proportion of bachelor degree students who are women, according to field of study, 1950-80 (percentages)

Field of study	1950	1955	1960	1965	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Humanities	38.2	40.3	44.9	49.9	53.8	54.9	56.1	56.9	57.5	58.0	58.8	59.8	59.8	61.0	63.0
Fine Arts	66.4	74.5	70.8	63.3	63.9	65.9	62.4	63.1	63.7	60.3	61.4	62.1	59.2	62.6	64.9
Social and behavioural science	n.a.	n.a.	n.a.	70.8	70.9	69.6	62.5	62.3	62.4	62.5	62.7	63.9	59.0	66.1	62.7
Law	5.5	10.1	11.9	11.4	14.6	16.1	19.0	20.3	22.4	24.4	26.7	29.1	29.2	32.4	34.6
Education	21.9	30.8	31.2	32.8	37.2	41.8	45.0	47.3	49.7	51.7	54.2	55.8	53.2	61.7	65.6
Economics, commerce and government	8.0	8.2	7.7	7.9	11.9	13.6	15.2	16.2	17.4	19.0	19.7	20.6	20.5	23.0	29.9
Medicine	12.4	14.8	16.6	21.7	26.5	29.2	30.4	32.0	34.6	36.7	38.1	38.6	38.2	38.5	38.9
Dentistry	5.3	10.0	8.9	9.1	10.9	11.3	13.0	14.6	16.5	18.8	19.1	20.1	20.3	22.4	22.7
Natural sciences	21.2	21.4	22.9	20.1	24.1	26.1	29.1	30.1	31.3	32.2	33.1	33.1	32.5	35.5	36.3
Engineering technology	0.0	0.2	0.5	0.3	0.9	1.2	1.0	1.6	1.8	2.0	2.2	2.3	3.8	4.0	4.6
Architecture, building	11.3	12.0	8.9	10.4	11.1	10.5	15.7	14.9	17.2	18.1	18.8	19.5	20.7	21.7	22.5
Agriculture, forestry	6.4	8.1	7.8	7.9	12.8	16.0	15.7	17.1	17.6	18.5	20.7	21.2	19.6	23.6	25.0
Veterinary science	7.5	8.1	7.4	10.5	17.3	16.4	17.4	19.8	21.7	25.1	28.7	31.9	33.4	38.7	39.4

- Notes: 1. For 1950, 1955 and 1960 'Natural Sciences' includes all science.
2. 'Education' includes those studying for their post-graduate diploma in education.
3. 'Medicine' includes paramedical fields such as pharmacy, optometry, physiotherapy and speech therapy.

Source: Based on ABS *Universities* bulletins.

Table 4.6
Women as a percentage of the total student population at various Australian universities, 1955-81

<i>University</i>	<i>1955</i>	<i>1960</i>	<i>1965</i>	<i>1970</i>	<i>1971</i>	<i>1972</i>	<i>1973</i>	<i>1974</i>	<i>1975</i>	<i>1976</i>	<i>1977</i>	<i>1978</i>	<i>1979</i>	<i>1980</i>	<i>1981</i>
Sydney	25.9	27.8	31.8	33.7	35.9	37.2	37.5	38.6	39.9	39.7	40.8	41.1	41.4	41.7	42.1
New South Wales	3.1	6.2	14.1	18.9	21.2	22.4	23.9	25.1	27.2	28.1	28.9	29.8	30.2	31.3	31.7
New England	24.9	26.5	26.8	32.2	34.1	36.0	36.9	38.7	40.3	41.9	42.5	42.8	44.4	46.2	33.9
Macquarie				35.1	37.4	40.1	39.0	41.7	43.5	45.2	47.0	47.7	47.6	48.5	49.5
Melbourne	23.4	26.2	29.0	31.1	32.0	32.7	33.9	35.1	35.2	36.2	36.5	38.2	38.8	39.6	41.1
Monash			30.7	32.1	32.9	34.0	34.4	36.1	37.7	38.7	39.4	40.5	41.7	43.0	44.2
La Trobe				39.0	40.1	40.1	40.4	42.7	43.3	44.2	45.6	47.1	47.2	49.0	50.4
Queensland	20.1	22.8	27.1	32.9	34.3	35.8	37.3	39.0	40.5	41.5	42.3	43.3	44.3	45.5	46.0
Adelaide	30.7	25.9	25.6	26.7	27.6	29.6	30.3	31.7	32.2	32.9	33.7	35.3	36.3	37.7	37.9
Flinders				34.7	35.7	36.3	37.6	38.4	38.5	41.1	43.8	43.0	45.0	45.6	44.8
Western Australia	23.8	23.6	24.2	31.0	32.9	33.4	34.4	34.8	35.6	36.2	37.3	38.3	38.9	40.2	42.3
Tasmania	27.5	28.8	31.7	31.6	33.0	33.0	33.2	35.4	36.2	37.4	37.0	36.4	37.5	36.5	45.5*
Australian National	18.3	20.3	26.8	27.5	28.3	29.2	31.8	34.1	36.2	37.8	39.1	39.4	41.0	41.6	42.2

* Student numbers at the University of Tasmania increased overall by 1565 compared with 1980. This was largely due to the amalgamation of the Mt Nelson campus of Tasmanian College of Advanced Education with the University of Tasmania.

Source: Based on ABS *Universities* bulletins. Figures for 1981 are preliminary only.

Table 4.7
 Female students at various faculties at Melbourne, Monash, and
 Queensland universities in 1970 (percentages)

<i>Faculty</i>	<i>Melbourne</i>	<i>Monash</i>	<i>Queensland</i>
Arts	75.1	69.4	57.9
Commerce	20.0	23.3	10.6
Law	24.9	17.1	12.1
Medicine	24.8	19.7	39.4
Science	20.1	33.8	26.5

Source: Smurthwaite, 1974: 169; University of Queensland, 1975: 129.

commonly held to be. For there can be little doubt that social change, including participation rates in higher education by women, occurs according to a definite set of rules of propriety: social change does not do away with prejudices, it merely substitutes one set of prejudices for another.

The fields in which women are dominant are the humanities, music, the social and behavioural sciences (which includes courses in psychology, social work, etc.) and education. The fields in which women have made the greatest gains since 1950 are education (up 44 per cent in 1980), medicine and paramedical studies (up 27 per cent), veterinary science (up 32 per cent), law (up 29 per cent) and the humanities (up 25 per cent). Engineering and technology have been left severely alone with only 4.6 per cent of engineering and technology students being female in 1980. The proportion of women studying architecture and building has increased by only 11 per cent in 30 years, while in natural science the increase has been only 15 per cent. This predilection of women to enter the humanities and people-oriented fields, in contrast with the tendency of men to prefer scientific and technical fields, fits closely with the sex differences in attitudes, values and motivations Beswick found in his study of matriculation and college students in the Regional Colleges project, with females ranking higher than males on a 'general human interest scale', lower in terms of 'scientific orientation'. Beswick comments, 'The overall effect of sex differences in attitudes and values is that girls are more likely to enter tertiary education but it will be in those vocational fields with a strong human interest and service component. Under present conditions the most likely outcome is to enter a teachers college' (Anderson *et al.*, 1975: I, 360). The same considerations apply at university, however, and so we get female preference for fields such as education, medicine and paramedical studies, humanities and the social sciences.

But there are anomalies. Dentistry, for example, is surely a highly vocational, human service field, yet after engineering and technology it has the lowest proportion of female students (23 per cent, rising from a mere 5 per cent in 1950). If we contrast this with the situation in medicine it is impossible not to conclude that study choices by women are strongly influenced by current social attitudes and values. Medicine, an occupation which matches the motivational interests of women, has attracted more than its proportionate share of the increasing numbers of female university entrants. The movement has been assisted by the relaxation in some universities of mathematics and physical science prerequisites. Nevertheless medicine remains a highly competitive field and those admitted are in the top 2 or 3 per cent of achievement in the university entrance examinations. Dentistry, on the other hand, has not attracted a proportionate increase of female students even though to some extent it matches the human interest and service motivational pattern of medicine.

The Effects of Social Conditions on Enrolments

In the section in this chapter on school leavers we pointed out that between 1921 and 1933 participation in schooling by girls aged 15 and over decreased slightly while participation by boys of the same ages continued to increase. In 1911 and 1921 there were more girls than boys aged 14 and over at school, while in 1933 the position was reversed. This was a reminder, we suggested, that increased participation in education by women was neither historically inevitable nor irreversible.

There is evidence that participation by women at university decreased in the 1930s and again at the beginning of the 1950s. Evidence of the decline in the early 1950s was presented in table 4.3; evidence relating to the 1930s is shown in table 4.8, which gives the proportion of female enrolments at the University of Sydney between 1920 and 1950. The proportion of female enrolments at the University of Sydney began to drop in 1930, falling from 28.0 per cent in 1929 to 21.3 per cent in 1936 before beginning to rise again. Whether the proportion of female students decreases or increases appears unrelated to whether student numbers as a whole are rising or declining. For example, when the proportion of female students at the University of Sydney was decreasing in the 1930s total student numbers were increasing; on the other hand, participation by women increased between 1920 and 1928, at a time when student numbers were falling (a trend which the authors of the *New South Wales Official Year Book 1928-29* attributed in part to 'the completion of courses delayed by the war and . . . to an increase in fees in 1921').

The most plausible explanation for the decline in the proportion of female students at universities in the 1930s and early 1950s is to be found in the contemporary social situation rather than mechanisms within the universities themselves. The 1930s and early 1950s were periods of economic decline and stagnation, and there is good reason to believe that in times of economic difficulty conservative social attitudes reassert themselves. In relation to participation by women in higher education this means a swing

Table 4.8
Proportion of female students at the University of Sydney,
1920-50 (percentages)

Year	Proportion of female students	Year	Proportion of female students
1920	23.2	1936	21.3
1921	23.5	1937	22.5
1922	23.8	1938	23.6
1923	22.6	1939	24.3
1924	24.6	1940	25.0
1925	25.5	1941	28.1
1926	27.1	1942	33.4
1927	n.a.	1943	37.9
1928	27.3	1944	38.8
1929	28.0	1945	34.4
1930	27.5	1946	24.7
1931	27.3	1947	20.9
1932	26.4	1948	20.4
1933	24.7	1949	20.5
1934	22.5	1950	21.2
1935	21.6		

Source: Based on *New South Wales Official Year Books*.

back to the view that higher education is a male prerogative, that especially in hard times it is the traditional breadwinner who must be given the opportunities only a tertiary qualification can give, while women help from within the home. There is a tendency for social ideals and such liberalisation of society as they are able to achieve to be regarded as a luxury which in the name of economic and social 'realism' must be put aside until better times. In 1939 one state director of education concerned with widespread unemployment among the young wrote:

It is in the majority of cases neither inappropriate nor unsatisfactory that thousands of young girls should leave school and become helpers in their own homes; but it is disastrous that thousands of boys of the same age should leave school and stay at home, or fail to take up some definite occupational or other interest.

It is all too tempting, on the basis of the last 20 years, to see the movement of women into higher education as an irreversible flow, beginning with a trickle in the nineteenth century and steadily swelling in volume to the present day. But as the figures show, increased participation by women is related to ambient social and economic conditions. Hence in view of the present economic uncertainty the fragility of social ideals cannot be overemphasised. Prolonged economic hardship could well reduce popular support—even among women—for increased personal opportunities through higher education; a shift in attitudes within the family could halt the trend towards greater female participation at universities and colleges. If jobs remain hard to get it is conceivable that, as has apparently happened in the past, parental pressures will direct daughters to take work as soon as it is available, reserving for sons the 'investment' in higher education.

On the other hand it is possible that things have changed too much in the last 30 years—not just in terms of attitudes towards education for women but in all aspects of society—for this particular historical pattern to repeat itself in the near future. Over the past few years, as we have seen, the rate of retention to the final year of public and private secondary schools has decreased for boys but has continued to rise for girls. University enrolment figures for 1978–80 show that while there has been an overall increase of 3 per cent on 1977 enrolments, this was only because female enrolments increased by 11 per cent; male enrolments actually decreased by 2 per cent. If current economic circumstances are having a detrimental effect on university enrolments, therefore, it is in relation to men rather than women.

Women in Colleges of Advanced Education

As pointed out in chapter 2, it is difficult to obtain reliable figures relating to college of advanced education students before the late 1960s, when the system was established. Prior to that time CAE courses other than teacher training were subsumed under the general label 'technical education', in much the same way as technical and further education today still covers a whole range of levels of study. 'Senior technical colleges' were the equivalent of CAEs, but tertiary level courses were taught in other institutions. The net result is that it is extremely difficult to determine the extent of participation of women in CAE-type education in the years prior to 1969.

Table 4.9 shows the proportions of male and female students at colleges of advanced education since 1969. Over the years the proportion of female students has increased rapidly. Until 1973, however, participation by women in CAEs was much less than in universities (e.g. 17.5 per cent compared with 30.5 per cent of university bachelor degree students in 1969; 26.4 per cent compared with 34.6 per cent in 1973). The spectacular increase in the proportion of women in CAEs from 26.4 per cent in 1973 to 42.7 per cent in 1974 was due to the incorporation of state education department teachers colleges into

Table 4.9
Participation in Australian colleges of advanced education
according to sex, 1969-81

<i>Year</i>	<i>Total students</i>	<i>Male %</i>	<i>Female %</i>
1969	31,949	82.5	17.5
1970	37,625	81.8	18.2
1971	44,468	80.0	20.0
1972	52,034	77.0	23.0
1973	61,575	73.6	26.4
1974*	107,202	57.3	42.7
1975	122,557	55.6	44.4
1976	134,614	53.8	46.2
1977	140,312	52.6	47.4
1978	149,922	51.9	48.1
1979	155,667	51.3	48.7
1980	159,466	51.2	48.8
1981	162,749	51.8	48.2

* State education department teachers colleges became CAEs.

Source: Based on ABS *Colleges of Advanced Education* bulletins. Figures for 1981 are preliminary only.

the CAE system during 1973. If it was not for teacher education the proportion of women in most CAEs would still be much lower than in universities.

The participation rates for women in different fields of study in CAEs between 1970 and 1981 are shown in table 4.10. By far the largest number of CAE students since 1973 has been in teacher education (30.8 per cent of CAE enrolments in 1978 were in teacher education, falling to 28.9 per cent in 1979); after this the largest student groups have been in commerce and business studies, liberal studies, engineering and technology, and applied science. Of these fields only teacher education and liberal studies are dominated by women; the other fields with a high proportion of female students (paramedical, music, and art and design) are relatively small in terms of total enrolments. If we compare table 4.10 with table 4.5 we see that participation by women in various fields of study is of a similar order whether study is undertaken at university or at a CAE, though perhaps at CAEs the conventional distinctions between 'masculine' and 'feminine' subjects is a little more marked; the proportion of women in commercial, scientific and technical fields at CAEs is down slightly on that at universities, but higher in such traditionally 'feminine' fields as music and paramedical studies.

Perhaps the most significant difference between colleges and universities is in the education faculties. Whereas in teacher education in CAEs in 1978 73.0 per cent of students were women, only 53.2 per cent of students studying education at university in that year were women. This is because most teachers college students are primary school teacher trainees; secondary school teachers require a university degree and post-graduate diploma. Here again we find women at the bottom of a hierarchy: although at least since the 1950s the majority of teacher trainees have been women, as table 4.11 shows, this has been achieved through the concentration of women in teachers colleges rather than universities for their training, and in primary schools rather than secondary schools for employment. Figures relating to the sex of school teachers bear out the fact that this has been happening for a long time. For example, in public primary schools there are more female than male teachers; in public secondary schools male teachers outnumber females. During the 1950s, although the proportion of female primary school teachers increased

Table 4.10
Participation by women in CAEs, 1970-81, according to field of study (percentages)

<i>Field of study</i>	<i>1970</i>	<i>1971</i>	<i>1972</i>	<i>1973</i>	<i>1974</i>	<i>1975</i>	<i>1976</i>	<i>1977</i>	<i>1978</i>	<i>1979</i>	<i>1980</i>	<i>1981</i>
Agriculture	5.1	7.1	10.1	12.6	16.8	17.3	14.7	16.5	21.0	24.3	21.9	26.9
Applied science	11.3	12.1	13.6	15.0	18.0	19.4	21.2	22.3	28.0	33.2	33.0	37.7
Art and design	50.4	51.9	51.0	52.3	53.7	53.8	53.8	57.2	54.1	55.5	55.1	57.9
Building, surveying and architecture	5.1	6.6	8.3	8.3	8.9	10.4	11.2	11.6	14.7	15.6	14.8	16.2
Commerce and business studies	9.5	11.0	11.1	11.9	14.2	16.0	16.9	18.4	24.2	24.2	28.5	27.6
Engineering and technology	0.4	0.4	0.5	0.7	1.0	1.2	1.2	1.3	1.3	1.7	1.3	1.7
Liberal studies	52.4	51.7	50.1	51.6	54.3	56.4	57.5	59.1	61.7	63.1	65.5	64.9
Music	74.4	76.3	69.9	70.6	70.1	67.4	65.1	61.8	61.9	62.0	63.7	62.8
Paramedical	67.9	71.1	71.4	69.1	70.2	69.1	70.3	72.0	73.1	73.9	80.0	75.0
Teacher education	69.8	74.4	67.1	65.0	68.0	67.9	68.9	69.3	73.0	73.2	69.5	69.3

Source: Based on ABS *Colleges of Advanced Education* bulletins. Figures for 1981 are preliminary only.

Table 4.11
Teaching trainees in Australia, 1951-60 and 1969-73,
according to sex

Year	Total trainees	Male %	Female %
1951	5566	42.9	56.2
1952	5714	43.2	56.8
1953	6982	42.0	58.0
1954	7579	40.0	60.0
1955	8422	38.2	61.8
1956	9526	38.1	61.9
1957	10,756	37.5	62.5
1958	11,934	38.0	62.0
1959	13,469	37.3	62.7
1960	14,914	37.0	63.0
1969	34,689	35.9	64.1
1970	39,079	35.3	64.7
1971	44,742	35.0	65.0
1972	51,114	36.2	63.8
1973	55,262	36.6	63.4

Note: 1951-60 figures include only students on state education department traineeships; 1969-73 figures also include students not receiving financial assistance from state education departments. Figures for each year include teacher trainees studying at university as well as those at teachers college.

Source: For 1951-60, Commonwealth Office of Education, Bulletin No. 17 (1962), *Statistics of Australian Education for 1960 and Earlier Years*; for 1969-73, ABS *Teacher Education* bulletins (which were discontinued in 1974 when state teachers colleges entered the CAE system).

(from 51 to 56 per cent) the proportion of female secondary school teachers decreased from 43 to 39 per cent (Commonwealth Office of Education, 1961: 14). Since then the proportion of female primary school teachers rose but has stabilised in the last few years around 68 per cent. In secondary schools female numbers have been fairly stable (44 per cent in the last 5 years).

Sex and Other Variables Affecting Participation in Higher Education

Not all sections of the female population have been equally involved in the increased movement by women into higher education. As we would expect, the social background of female higher education students is as unrepresentative of the female population as that of all students is unrepresentative of the population as a whole. Women can be regarded as a 'social group' only in a rather special sense: they are, after all, half the population, so it is scarcely surprising that as a group they exhibit most of the characteristics of the population as a whole.

The chapters which follow show that higher education students tends disproportionately to come from the city rather than the country, to have attended a private rather than a public school, and to be of high socio-economic background. The same is true of female students as a group. The probability of a country woman of low socio-economic background going to university or college is small compared to that of her urban middle class sisters.

Studies dealing specifically with the social background of female university students have emphasised their relatively high status family origins. Zainu'ddin (1973), in her discussion of the women who in the nineteenth century pioneered entry for their sex to the University of Melbourne, presents information which shows that the great majority

had backgrounds either in the professions or 'commerce, trade and manufacturing'. Even these broad categories, which are industrially rather than occupationally defined, are enough to indicate that few working class or country women took part in the pioneering movement (Zainu'ddin, 1973: 70-1, 82-4). Nevertheless it does seem that there were representatives of what can roughly be called the lower middle class, for example, those whose fathers were shopowners, bone merchants, jail wardens.

The study by Madge Dawson (1965) of married female graduates of the University of Sydney included data on the social background of female students since the turn of the century. Using the Congalton-Havighurst scale of occupational status (which has since been supplanted by other such scales) Dawson found that 15 per cent of her total sample came from the highest status group (doctors, lawyers, graziers, owners or directors of large businesses) and a further 57 per cent from status groups 2 and 3 (including businessmen, farmers, bankers, engineers, teachers and clergymen); only 11 per cent came from the groups that included almost all the skilled and all the semi- and unskilled manual workers. Analysis of the data according to the age of the respondents showed that it was wrong to suppose that female students have been increasingly drawn from wider social groups; rather, the figures suggest the opposite: 'the proportion from the upper status groups and the professional families has increased, while the proportion from the lower status groups and the manual worker families has decreased' (Dawson, 1965: 4). Thus while 64 per cent of the female graduates who were 60 years or older in 1965 came from the top three status groups, this was true of 76 per cent of those age 30 years or less. In relation to type of school attended no long-term clear trend was apparent, but it was among those in their fifties that the proportion of ex-public school students was greatest. Because it was also this age group that had the largest proportion of students of low ranking occupational background, Dawson comments 'The women between 50 and 60, who were born in the first years of the century and were students in the twenties, seem to represent the decade of the common man, or woman, in this survey' (Dawson, 1965: 12).

Women in Technical and Further Education

In view of the wide variety of courses gathered under the general term 'technical and further education', it is to be expected that the proportion of female students will differ considerably from course to course. Unfortunately figures for the participation of women in technical and further education over an extended period are hard to come by; on a national basis they are simply not available, and even within most states relevant records appear to be scanty.

Table 4.12 shows the proportion of male and female technical education students in New South Wales between 1924 and 1972. It must be remembered that 'technical education' until recently included the 'senior technical colleges' which became colleges of advanced education, and does not include the array of courses subsumed under 'further education'. The figures in table 4.12, therefore, cannot be meaningfully compared to those gathered by the TAFE Commission since 1974.

Table 4.13 shows the proportion of female TAFE students in 1980 according to stream of study and full-time/part-time enrolment. Women outnumber men in streams 4, 5 and 6; that is in the 'other skilled' groups comprising mainly vocational courses apart from those leading to a recognised trade or certificate qualification, 'preparatory' courses and 'adult education' courses in subjects like home handicrafts, hobbies and artistic appreciation. In other words, the only areas of TAFE study in which women predominate are those which do not lead to the sort of formal qualification that is indispensable for

Table 4.12
Proportions of male and female technical education students in
New South Wales, 1924-72

Year	Total students	Male %	Female %	Year	Total students	Male %	Female %
1924	11,386	68.0	32.0	1949	64,902	74.8	25.2
1925	11,787	69.1	30.9	1950	69,085	71.5	28.5
1926	12,089	70.0	30.0	1951	64,165*	68.6	31.4
1927	13,238	71.9	28.1	1952	66,981	68.4	31.6
1928	15,326	70.4	29.6	1953	68,478	68.7	31.3
1929	15,253	70.7	29.3	1954	68,332	68.2	31.8
1930	15,819	70.5	29.5	1955	72,405	68.4	31.6
1931	15,152	66.4	33.6	1956	n.a.	n.a.	n.a.
1932	15,549	63.8	36.2	1957	86,636	67.0	33.0
1933	17,102	65.7	34.3	1958	91,135	66.9	33.1
1934	18,564	66.9	33.1	1959	n.a.	n.a.	n.a.
1935	19,959	66.7	33.3	1960	108,547	66.6	33.4
1936	21,364	68.8	31.2	1961	113,443	67.2	32.8
1937	26,188	70.3	29.7	1962	121,653	68.0	32.0
1938	30,865	73.7	26.3	1963	127,696	68.5	31.5
1939	37,264	73.5	26.5	1964	135,685	69.8	30.2
1940	38,536	73.0	27.0	1965	140,217	70.5	29.5
1941	40,983	74.1	25.9	1966	148,979	70.0	30.0
1942	39,381	76.0	24.0	1967	155,692	68.6	31.4
1943	34,940	75.7	24.3	1968	158,755	67.8	32.2
1944	39,750	74.0	26.0	1969	167,981	66.6	33.4
1945	42,767	72.3	27.7	1970	162,618	65.2	34.8
1946	49,952	77.8	22.2	1971	169,206	64.4	35.6
1947	59,300	76.3	23.7	1972	162,940*	64.4	35.6
1948	61,327	75.5	24.5				

* University of Technology established, students transferred to university sector

* Excludes NSW Institute of Technology students

Source: Based on NSW Official Year Books.

movement up the occupational ladder to better paid and more prestigious jobs. Particularly noteworthy is the fact that trade courses are almost the exclusive province of men.

Conclusion

In the first decade and a half of the post-war period in the universities the participation of women remained at about the same rate—approximately one-quarter of the total number of students. Starting in the 1960s, however, the participation of women began to accelerate and, should the trend continue, will soon equal that of men. The number of girls staying to year 12 of secondary school is now greater than the number of boys, and, provided the sex ratio in transfer to higher education remains constant, women will be the majority in university undergraduate courses within 3 or 4 years.

The number of women in teachers colleges (subsumed under the title colleges of advanced education since 1973) grew enormously with the massive recruitment of teachers required as the children of the post-war baby boom moved through the schools. Elsewhere in the college system the participation of women remained low because few were attracted to technical fields and human service courses such as the paramedical therapies and social work remained numerically small.

Table 4.13
Proportions of male and female technical and further education students, according to stream of study
and type of enrolment, 1980 (percentages)

Stream	Type of study							
	Full-time		Part-time		External		All students	
	Male	Female	Male	Female	Male	Female	Male	Female
1. Professional	35.9	64.1	61.0	39.0	44.2	55.8	53.1	46.9
2. Para-professional	55.0	45.0	67.2	32.8	69.8	30.2	66.1	33.9
3. Trade: basic	96.4	3.6	93.5	6.5	60.4	39.6	93.0	7.0
post-trade	99.8	0.2	95.7	4.3	95.2	4.8	95.8	4.2
4. Other skilled	10.2	89.8	41.4	58.6	65.3	34.7	40.7	59.3
5. Preparatory	53.1	46.9	42.8	57.2	38.1	61.9	43.5	46.5
Total 1-5	48.9	51.1	61.8	38.2	61.6	38.8	60.6	39.4
6. Adult Education	—	—	32.0	68.0	33.2	65.8	32.1	67.9
Total 1-6	48.9	51.1	52.6	47.4	60.3	39.7	52.8	47.2

Source: Commonwealth Tertiary Education Commission.

Despite the evening of the sex balance in the senior secondary school and the flow on to higher education, there is a very uneven distribution of the sexes across courses and it seems most unlikely that this will change drastically in the foreseeable future. One type of evidence for this contention is the motivational data: women students are more interested than men in those courses and occupations which offer opportunities for social service and working with people. Men, on the other hand, are more interested in dealing with abstractions and in manipulating the physical environment; they also respond more to extrinsic attributes of jobs: prestige, salary, security and the opportunity for advancement. There is a matching of self-image with image of occupation which leads girls and boys on to different career tracks, and, within particular careers, to different sorts of specialisation. A related set of findings concerns subjects chosen for study at school and performance in them. Girls are inclined to choose humanities and human sciences; boys tend to choose physical sciences and mathematics.

There has been fierce dispute over the question of whether these sex-linked differences are to be traced to biological make-up or social learning, to nature or nurture. Until there is a better understanding of the causes of these differences it is hazardous to predict whether recent trends will continue until there is more even participation or whether there will be reversals as there have been in the past. If, as is almost mandatory to believe at present, it is true that differences in interests and preferences are due to the socialisation of girls for an antiquated culture, then with more enlightened education (and parental attitudes) we would expect girls to enter a wider range of post-secondary studies. On the other hand the culture-lag theory may not be a sufficient explanation of the sex-related career patterns. If the differences in interests and preferences are rooted in cultural adaptations which derive ultimately from biological differences the different career patterns will remain.

In the meantime there is convincing evidence from comparative studies of prejudices concerning education for girls which result in restricted career opportunities. Generally parents have been less inclined to invest in higher education for their daughters than for their sons; and school-teaching has always been regarded as a pre-eminently suitable occupation for girls because it provides, among other things, a respectable profession with hours and holidays convenient to the combination of work and motherhood. Particularly when parents in country areas have allowed their daughters to leave home for the purpose of higher education, it has been primarily to undertake training for school teaching, which usually provides some supervision and accommodation as well as the end-product of a familiar and respectable career.

Australia has entered a new era with respect to graduate employment, one in which graduates can no longer be certain of employment commensurate with their skills and expectations. Changes in the field of school teaching, where opportunities are down by as much as 50 per cent, affect the life chances of more students than restrictions in any other profession. Teaching has been the particular vehicle for upward social mobility of children of lower socio-economic background, especially girls. With the severe cuts in teacher education there will be many thousands of school-leavers who, had they completed their education in earlier years, would have entered teaching. Now they must look elsewhere. It is not yet clear whether they will look elsewhere in higher education and take up careers in other professions. Given the general downturn in employment opportunities it is quite conceivable that there will be a return to earlier social patterns with large numbers of bright students, particularly girls, not proceeding to higher education in order to take the first job that comes along. Should this turn out to be the case the steadily rising curve of female participation in higher education will flatten out.

5 Public or Private—School Background of Higher Education

One quarter of the Australian population is Roman Catholic and roughly 4 out of every 5 Catholic children attend a Catholic school. The Catholic school system makes up the bulk of the private school sector: less than 5 per cent of Australian children attend non-Catholic private schools. The remaining 80 per cent of the school population goes to public schools.*

Researchers have long been interested in the school background of higher education students, for two main reasons: first, the type of school attended—whether public, Catholic or non-Catholic private—had considerable bearing on the likelihood of a student remaining at school to matriculation level and continuing to higher education; and second, especially in early studies, type of school attended has served as the major (if not the only) indicator of the socio-economic status of students.

These two issues will be treated more or less separately in this chapter. However, it is important to see that the two issues merge to form a very difficult problem; accepting the fact that the socio-economic status of non-Catholic private school students is higher than that of public school students (see Appendix) and that a much higher proportion of non-Catholic private school students continue to higher education and to university in particular, to what extent is this due to the high socio-economic status of private school students and to what extent is it due to the type of school they attend? A considerable number of factors come together here and interact. Related to socio-economic status are factors such as parents' occupations, previous family experience of higher education, family expectations and educational aspirations, and financial resources; related to schooling are factors such as school traditions and expectations, quality of academic preparation, and the influence of peers. To attempt to isolate and measure the effect of any one factor is a very risky enterprise. This problem shall be examined further in the last section of this chapter.

School Retention Rates and Likelihood of Continuation to Higher Education

As has been pointed out, the likelihood of a student continuing, first to matriculation level at school, and then into higher education, correlates strongly with the type of school attended. The Commonwealth Department of Education has collected nationwide figures

* Public schools in Australia, i.e. those administered by state education departments and fully maintained from public funds, are sometimes referred to as state or government schools. Non-government schools, i.e. those which charge fees and are not part of the state system are, for the purposes of our analysis, referred to as private. Private schools affiliated within the Roman Catholic Church are referred to as Catholic; others as non-Catholic private.

on retention rates in the different school systems since 1967. These are presented in table 5.1, which shows the large differences between the apparent retention rates in non-Catholic private schools, Catholic schools and public schools. Even allowing for transfers into the private schools from the public systems the differences remain very large. The non-Catholic private schools are clearly preparatory schools for higher education. Over a 13-year period to 1980 retention in these schools has not increased markedly simply because they are already close to their ceiling. Catholic schools, which in 1968 were not far ahead of the public schools, have increased their rate markedly but still have only about half the holding power of the non-Catholic private schools.

Information relating to school retention rates and transition to higher education in earlier years is fragmentary, but what there is tells the same story: in terms of the total school population, students from private schools are strongly over-represented in the final school year, and are even more strongly over-represented among the matriculants who enter university.

One of the earliest but still one of the strongest demonstrations that private school students become increasingly over-represented at the higher educational levels, while public school students become more and more under-represented, was given by La Nauze (1940). Dealing only with male students in South Australia in the 1920s and 1930s, La Nauze found that 'boys from State schools, despite their great numerical superiority in the early years of life, play a progressively smaller part at each stage of progress towards higher education and higher incomes' (La Nauze, 1940: 54-5). Of school students in South Australia at the time who were less than 14 years of age (then the age to which schooling was compulsory), 90 per cent were enrolled in public schools; in the case of students 16 years or older the proportion was only 58 per cent. Another way of expressing the same point is although 14 per cent of all non-Catholic private school students were

Table 5.1
Apparent grade retention rates to year 12 of Australian
secondary schools, 1967-80*

Year	Public	Catholic	Non-Catholic private	All schools
1967	18.4	n.a.	n.a.	22.7
1968	20.4	27.5	76.3	25.0
1969	23.0	29.7	78.5	27.5
1970	24.8	31.6	80.6	29.3
1971	25.9	33.9	81.7	30.6
1972	27.6	35.2	86.5	32.4
1973	27.9	37.7	88.0	33.1
1974	27.3	39.1	90.3	32.9
1975	28.6	40.9	88.2	34.1
1976	29.6	41.5	88.9	34.9
1977	29.7	43.2	87.6	35.3
1978	29.6	43.1	85.5	35.1
1979	28.9	44.1	87.1	34.7
1980	28.4	44.8	87.9	34.5

* Calculated by expressing the number of students in final year as a percentage of the number who started secondary school five or six years earlier. No allowance is made for transfers or recruitment after base year or for students who repeat years. Because of this the apparent retention of non-Catholic private schools is probably over-stated.

Source: Australian Department of Education, *Statistical Monograph No. 3*, 5th ed., 1981.

16 years or older, this was true of only 3 per cent of Catholic school students and 2 per cent of public school students. Not only did students from non-Catholic private schools stay at school longer than those from government and Catholic schools, they were also more likely to receive a government bursary for university study: in the years 1924-33, 71 per cent of university bursaries in South Australia went to non-Catholic private school students, 22 per cent to public school students and 7 per cent to Catholic school students; for the period 1924-37 the percentages were 70, 25 and 5 respectively (La Nauze, 1940: 41).

Table 5.2, reproduced from La Nauze's study, clearly shows the extent to which this differential participation by students according to type of school backgrounds was a feature of the University of Adelaide's student body at the time. As the figures demonstrate, there was considerable variation between faculties and level of study. The reason the majority of students in the arts and science pass courses came from public schools was, according to La Nauze, because most of them were student teachers paid by the State Education Department. For the rest, the over-representation of students from private schools which began in the later years of secondary schooling was further intensified: 'men from State schools, who comprise nearly 90 per cent of the school population at age 13-14 ... are only 40 per cent of all graduates in the period' (La Nauze, 1940: 48).

Similar data relating to Victorian education in 1939 are presented by N.K. Henderson (1942, 1946). In 1939, although three-quarters of the Victorian school population were in public schools, only slightly more than one-third of the students qualifying for the Leaving Certificate (year 12 examination) were from public schools, and just under one-quarter of the 1939 graduates of Melbourne University had attended public schools. As in the case of Adelaide University there was considerable variation between faculties and course intensity. Table 5.3 shows the school background of 1939 Melbourne University graduates according to faculty (unfortunately Henderson did not distinguish between Catholic and non-Catholic private schools).

Table 5.2
University of Adelaide—male graduates 1927-37
who attended South Australian schools

	N =	Percentage distribution			Total	'Private study' etc. not included N =
		Public schools	Non-Catholic private schools	Catholic schools		
Arts (pass)	125	71.2	24.8	4.0	100	17
Arts (honours)	29	13.8	82.8	3.4	100	2
Science (pass)	88	64.8	30.7	4.5	100	2
Science (honours)	26	30.8	69.2	—	100	—
Engineering	151	45.0	53.0	2.0	100	6
Law (and Final Certificate)	137	21.9	65.7	12.4	100	10
Medicine	135	14.1	68.9	17.0	100	4
Dentistry	24	29.2	54.1	16.7	100	—
All graduates	715	39.4	52.6	8.0	100	41

Source: La Nauze, 1943: 47.

Table 5.3
School background of graduates of Melbourne University in 1939,
according to Faculty

	N =	Percentage distribution	
		Public	Private
Medicine	55	9	91
Science (pass)	66	29	71
Science (honours)	—	—	—
Law	30	30	70
Arts (honours)	33	24	76
Arts (pass)	52	33	67
Commerce	23	13	87
Engineering	15	40	60
Other faculties	18	21	79
Total	292	24.3	75.7

Source: Henderson, 1946.

The results reported by La Nauze and Henderson were confirmed only a few years later by national figures collected on behalf of the newly established Universities Commission by C. Sanders (1948). Table 5.4 shows the school background of first year students in 'scientific' faculties in Australian universities in 1939, 1943 and 1944. The proportions of public, Catholic and non-Catholic private school students entering 'scientific' faculties—and Sanders included faculties such as medicine and engineering among these—correspond roughly to the figures given by La Nauze and Henderson. As Sanders shows, however, the proportion of public school students beginning 'scientific' studies at university increased from 36 per cent in 1939 to 45 per cent in 1943 and 1944.

There is some ground for attributing this rise in the proportion of public school students to the social dislocations and bureaucratic changes of the war years. During World War II manpower controls changed conditions for entry to university, with university training being considered as only one aspect of national service and quotas being placed on faculty enrolments. This, together with the Commonwealth Government's scheme of financial assistance to less well-off students (begun in 1943) probably led to some democratisation of representation, indicated here by the increase in the proportions of students coming to university from public and Catholic schools.

Table 5.4
School background of first year students in scientific faculties in
Australian universities, 1939, 1943, 1944 (percentages)

	1939			1943			1944		
	Men	Women	All	Men	Women	All	Men	Women	All
Government	36	37	36	46	43	45	45	44	45
Non-Catholic private	41	49	43	28	44	32	28	43	31
Catholic	14	8	13	22	9	19	23	11	21
Private study	5	3	4	2	2	2	2	—	1
Other	4	3	4	2	2	2	2	2	2
N =	735	178	913	1097	331	1428	1141	288	1429

Source: Sanders, 1948: 127.

Sanders gives an indication of the relative socio-economic status of the families of the students coming from the various school systems by recording the fact that while only 26 per cent of the students from private schools entering scientific faculties in 1943 received government financial assistance, which was means-tested, 53 per cent of students from Catholic schools and 63 per cent of students from public schools did so (Sanders, 1948).

More information relating to the school background of wartime university students is provided by H.H. Hohne's study of 1943 and 1944 entrants to Melbourne University (Hohne, 1951, 1955). Like La Nauze, Henderson and Sanders, Hohne found that students from non-Catholic private schools made up a very high proportion of the full-time students: approximately 40 per cent of the arts intake in 1943, and 50 per cent in 1944. Amongst part-time students, students from public and Catholic schools were much better represented (Hohne, 1951: 3-4). Hohne also found that university performance varied according to type of school attended. In his 1951 study of arts students he reports that students from non-Catholic private schools were most successful and those from public schools were least successful (chapter 4). Moreover, in the 1955 report he states that 'the situation revealed in Arts prevailed even more markedly in the scientific faculties' (Hohne, 1955: 109).

All the post-war studies of school leavers and university entrants—and there have been a considerable number of them—show that over the years participation rates for students coming from the different school systems have remained remarkably stable. The best illustration of this comes from the University of Melbourne where, except for 1971, 1973, 1977 and 1979 surveys of the first year student intake have been carried out annually since 1962. The results relating to school background of students are given in table 5.5. As may be seen, there is some suggestion of a fluctuation in the proportion of students coming from public schools, peaking in 1966 to 48 per cent, but in 1980 the figure was down to 35 per cent again—less than the national average during the war years, but considerably higher than the 24 per cent Henderson gives for 1939. While there is an apparent rise in the proportion of university entrants coming from Catholic schools and a corresponding decrease in the number from non-Catholic private schools, these changes seem to be largely accounted for by the fact that until 1967 the Catholic school figures did not include certain Catholic schools of high social prestige, which were regarded in the same league as high status private schools. In 1968, when the classification of schools in the survey was altered, the proportion of Catholic school students rose by 4 per cent while that of private school students fell by 6 per cent. Any real change, therefore, has been minimal, at least in the long term.

A comparison of the Melbourne University data with those available from a similar annual student survey at Monash University since 1970 shows there are significant variations in the participation rates for students from the different school systems even between two institutions in one city. As comparison of tables 5.5 and 5.6 shows, the proportion of ex-public school entrants to Monash tends to be considerably higher than at Melbourne—in the region of 10 or more per cent—but it is difficult to account for this difference in a satisfactory way. For example, in 1972, 38 per cent of Melbourne University entrants came from public schools, 21 per cent from Catholic schools, 31 per cent from non-Catholic private schools, with the remaining 10 per cent falling into the 'other' category. In the same year 52 per cent of Monash entrants have a public school background, 13 per cent Catholic, 27 per cent non-Catholic private and 8 per cent are in the 'other' category. In other words Melbourne attracted relatively many more ex-Catholic school students, Monash many more ex-public. Lest we attribute much significance to this high proportion of Catholic entrants to Melbourne University—it has also

Table 5.5
School background of entrants to Melbourne University, 1962-80,
according to type of school attended in final year of
secondary school (percentages)

	N =	Type of school			
		Public	Catholic ^a	Non-Catholic private	Other ^b
1962	2257	43	14	36	6
1963	2795	45	13	31	13
1964	2839	46	14	31	9
1965	2533	47	14	30	9
1966	2567	48	15	31	6
1967	2670	46	17	32	5
1968	2574	44	21	26	9
1969	2926	41	20	26	13 ^c
1970	2941	38	20	25	17 ^c
1971					
1972	2800	38	21	31	10
1973					
1974	2812	36	20	29	15
1975	2786	34	19	30	17
1976	2985	41	19	30	10
1977					
1978	2638	38	21	34	7
1979					
1980	2718	35	23	33	9

^a For 1962-7 Catholic figures exclude certain high prestige schools which are included under non-Catholic private.

^b Includes interstate and overseas students.

^c The 1969 and 1970 figures are taken from Lee Dow *et al.*, 1972. For these years students on whom no information was available are included in the 'other' category. For all other years percentages have been recalculated to exclude them.

Source: Melbourne University annual student surveys.

Table 5.6
Percentage distribution of entrants of Monash University, 1970-6, 1980 and 1982,
according to type of school attended in final year of secondary school

	N =	Type of School			
		Public	Catholic	Non-Catholic private	Other ^a
1970	2197	50	16	26	8
1971	2311	49	15	27	9
1972	1534	52	13	27	8
1973	1491	48	16	28	8
1974	2736	48	16	26	8
1975	2537	52	21	26	1
1976	2469	50	22	26	2
1980	2336	47	19	29	5
1982	2130	45	19	25	11

^a Includes interstate and overseas students

Source: Monash University annual student surveys.

been remarked upon by Fensham and Taft (1973: 11)—it is best to look at the figures for another year, say 1976. In that year once again a considerably smaller proportion of students from public schools entered Melbourne than Monash University (41 per cent compared with 50 per cent), but this time the proportion of ex-Catholic school students was also lower at Melbourne (19 per cent) than at Monash (22 per cent). In 1976 the biggest difference between the two institutions was in the 'other' category, which accounted for 10 per cent at Melbourne and only 2 per cent at Monash. A very conspicuous feature of the Monash figures in table 5.6 is that while in 1970-4 the 'other' category at Monash remained constant around 8 per cent, in 1975 it suddenly dropped to 1 per cent. What are the reasons for this? Is it related to the abolition of tertiary fees in 1974, to some policy at Monash which made it attractive to the interstate, overseas and adult students (who make up the bulk of the 'other' category) while fees had to be paid but lost that attraction when fees were abolished? It may be that Melbourne's continuing high proportion of 'other' students (17 per cent in 1975, 10 per cent in 1976) results in part from its longer tradition and more established reputation, which may help it to draw students from interstate and overseas, as well as from different policies relating to the groups of students which fall into the 'other' category.

We have seen that the retention rates for public, Catholic and non-Catholic private schools are very different and this determines the numbers who get to the starting-gate for university entrance. Over and above this, however, in the actual transition of qualified students from school to university, there are more non-starters from public and Catholic schools. The evidence is not uniform however.

The study of matriculants to Australian universities in 1957 carried out by the Commonwealth Office of Education and ACER revealed considerable variation in the proportions of successful matriculants entering university, not only between school systems but also between sexes and between states. On the whole, participation rates for a given sex in a given state tended to be relatively similar for each of the school systems, as table 5.7 shows. In some cases, however (e.g. males in New South Wales and Western Australia), at least as high a proportion of matriculants from the public sector as from the non-Catholic private sector entered university (Commonwealth Office of Education, 1961).

Table 5.7
Percentage of successful 1957 matriculants enrolling at Australian universities,
according to sex and type of school attended

	<i>Type of school</i>					
	<i>Public</i>		<i>Catholic</i>		<i>Non-Catholic private</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
New South Wales*	68	38	61	36	67	60
Victoria	77	54	69	49	86	59
Queensland	74	47	79	64	76	70
South Australia	78	72	67	67	82	81
Western Australia	78	51	77	59	75	67
Tasmania	77	74	68	70	77	58

* Includes 'Asian and Adult students', which are excluded from the figures for the other states.

Source: Commonwealth Office of Education, 1961: 12.

On the other hand Dufty (1972), in his study of entrants to higher education in Western Australia in 1971, found that while 52 per cent of matriculants from non-Catholic private schools entered university, only 35 per cent from Catholic and 31 per cent from public schools did so.

School Type and Inter-Faculty Differences

As we would expect, there are also large variations in the proportions of students from the three types of school who enter different university faculties. The more socially prestigious professional faculties of medicine and law attract the highest proportions of non-Catholic private school students and the general arts and science courses the lowest.

It would be a mistake to reduce these differences to a question of snobbery or wealth. A number of important factors come into play here, factors which certainly involve economic and attitudinal elements but also academic and administrative/bureaucratic ones.

Philp *et al.* (1964: 57-9) surveyed graduates of the University of Sydney and found private school students disproportionately numerous in medicine. They argue that it was the *length* of the medicine course and the consequent higher costs of studying medicine that explained the higher proportion of non-Catholic private school students who tended to be from wealthier families. A slight drop in the proportion of non-Catholic private school students in the 1958 undergraduate group compared with the graduates was due, they believed, to the greater opportunities for less well-off students provided by the recently instituted Commonwealth Scholarship Scheme. Certainly the availability of scholarships—even when awarded on a competitive rather than a means basis—will have made it possible for some students of low socio-economic background to study at university, but it must not be forgotten that a disproportionate number of Commonwealth scholarships tended to go to students from non-Catholic private schools, where academic aspiration and achievement was highest (see Fensham, 1965). Economic factors alone do not account for the differentiating influence of school background on participation in higher education.

In their study of students entering the professions of medicine, law, engineering and teaching, Anderson and Western (1970) found type of school attended to be a significant variable between students in the various faculties. Table 5.8 shows the extent of the variations. At one extreme was medicine, in which 34 per cent of students had public school backgrounds and 35 per cent had non-Catholic private school backgrounds; at the other extreme was teaching, in which 64 per cent of students came from public schools and only 15 per cent from non-Catholic private schools.

Table 5.8
Type of school attended by students in various professional faculties
at six Australian universities (percentages)

	<i>Medicine</i> 1967 N = 572	<i>Law</i> 1965 N = 645	<i>Engineering</i> 1965 N = 652	<i>Teaching</i> 1967 N = 1277
Government	34	32	57	64
Catholic	26	29	17	17
Non-Catholic private	35	34	18	15
Other	5	5	8	4

Source: Anderson and Western, 1970: 18.

Table 5.9
Type of school attended by full-time students* entering University of NSW
in 1969, according to faculty (percentages)

	Type of school			
	Public	Catholic	Non-Catholic private	Other
Applied science	62	15	14	10
Architecture	62	14	18	6
Arts	59	19	17	5
Biological science ^b	56	28	9	6
Commerce	50	25	21	4
Engineering	68	18	8	6
Medicine	55	22	19	4
Science	64	22	10	4
Vocational studies ^c	60	14	19	6
All faculties	60	19	15	6

* Students on whom no information was available have been excluded.

^b Includes 8 part-time biological science students.

^c Includes 3 part-time vocational studies students.

Source: Katz, Barrett and Firth (no date), p.10.

Once again it is necessary to note that there are considerable variations between institutions. Table 5.9 shows the school background of students entering the various faculties of the University of New South Wales in 1969. As can be seen, the proportion of non-Catholic private school students beginning medicine was remarkably low—only 19 per cent—with the proportion entering commerce being the highest at only 21 per cent.

A higher percentage of public school students entered engineering than any other faculty (68 per cent). Only 15 per cent of the total student intake came from non-Catholic private schools in 1969, a figure well below the national average, which to some extent would be accounted for by the history of this particular institution, first as a senior technical college, then a University of Technology, and finally a multi-purpose university, renamed the University of New South Wales in 1958.

Quite different are the figures for 1969 and 1970 entrants to Melbourne University presented by Lee Dow *et al.* (1972). The Melbourne figures agree fairly well with those of Anderson and Western cited above, and also are more in line with the early figures for Adelaide University (given by La Nauze) and Melbourne University (given by Henderson). Students with a non-Catholic private school background were more prevalent in the professional faculties of medicine and law than others and least common in science education and general science. The opposite is true of students coming from public schools.

School Background and Destination after Schooling

The studies of school leavers and their destinations after schooling which have been carried out all show results which cohere with those already discussed. Not only do a greater proportion of non-Catholic private school leavers than leavers from other sectors enter higher institutions, but a greater proportion of them also enter university rather than less prestigious institutions such as teachers colleges and other CAEs, which tend to be left more to students from public and Catholic schools.

Table 5.10
Full-time students entering selected faculties of the University of Melbourne,
by type of school attended, 1969 and 1970 (percentages)

Faculty	1969 entrants, N = 2374				1970 entrants, N = 2342				Total
	Public*	Catholic	Non-Catholic private	Other or no information	Public*	Catholic	Non-Catholic private	Other or no information	
Arts	35	24	24	17	33	19	28	20	100
Commerce	39	19	24	18	37	24	24	15	100
Law	27	29	33	11	21	31	31	17	100
Medicine	34	21	42	3	31	25	38	6	100
Science	49	18	20	13	49	16	21	14	100
Science (education)	59	16	19	6	51	19	19	11	100
Engineering	37	22	25	16	44	23	28	5	100

* Includes only public high schools, and not public technical schools, which in Victoria contribute a small proportion (1 per cent in 1968 at Melbourne University) of university entrants.
Source: Lee Dow, Jones and Osman, 1972: 87.

Radford (1962) considered the course of action of some 114,000 students—approximately 80 per cent of the total—who left Australian schools in 1959–60. As Table 5.11 shows, the proportions from the different school systems entering the various types of post-secondary institutions as full-time students varied considerably. Of entrants to universities, 60 per cent of males and 56 per cent of females had attended public schools, 11 per cent of males and 16 per cent of females came from Catholic schools, and 29 per cent of males and 28 per cent of females from non-Catholic private schools. Of teachers college entrants, on the other hand, 88 per cent of males and 75 per cent of females came from public schools, 7 per cent of males and 16 per cent of females from Catholic schools, and only 5 per cent of males and 9 per cent of females from non-Catholic private schools. Thus, in relation to the overall proportion of school leavers from each type of school leaving at matriculation level—public 66 per cent, Catholic 15 per cent, non-Catholic private 19 per cent (Radford, 1962: 27)—students from public schools were under-represented at universities and over-represented at teachers colleges, and vice versa for students from non-Catholic private schools.

As far as school background in relation to entry into higher education was concerned, of the 7845 students in the 1971–72 school leaver sample who entered university, 58 per cent came from public schools, 15 per cent from Catholic schools, and 27 per cent from non-Catholic private schools; for the 4482 students who entered teachers colleges the proportions were 74 per cent, 16 per cent and 10 per cent respectively (Radford and Wilkes, 1975: 50). In view of the caution with which the results must be treated because of the poor response rate, it would be foolish to attempt to ascribe much significance to the small differences in the figures for 1959–60 and for 1971–72. At most we can say that if any change has occurred it has been too small to substantially alter the relative participation in universities and teachers colleges by students from the different school systems.

Radford's Australia-wide findings are confirmed by studies made of school leavers in individual states. Dufty (1972) traced the educational paths of all the students who began secondary school in Western Australia in 1966. Table 5.12 shows the proportions in the different school systems who continued to matriculation level at school and then entered

Table 5.11
School background of full-time entrants to various
post-secondary institutions* 1959–60 (percentages)

<i>Institution entered</i>	<i>Type of school</i>					
	<i>Public</i>		<i>Catholic</i>		<i>Non-Catholic private</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
University	60	56	11	16	29	28
(Non-Catholic)	88	75	7	16	5	9
Teachers college						
Technical college	80	74	6	15	13	11
Business college	61	71	21	15	18	13

* Not all the institutions entered were higher education institutions. 'Technical colleges' included both senior technical colleges (now CAEs) and trade level institutions; 'business colleges' offered mainly secretarial and related courses.

Source: Radford, 1962: 28.

Table 5.12

Secondary school retention rates and movement into higher education,
based on first year secondary school enrolments in
Western Australia in 1966 (percentages)

	Type of school		
	Public	Catholic	Non-Catholic private
	On base year N = 13,268	On base year N = 2762	On base year N = 1199
1st year secondary school	100	100	100
Matriculation year	14	18	43
University of WA	4	6	22
Western Australia Institute of Technology	5	7	10
Teachers colleges	5	5	11

Source: Dufty, 1972: 237.

either the University of Western Australia, the West Australian Institute of Technology or teachers colleges within the state. Again we see that retention rates were much higher for non-Catholic private schools than for Catholic and public schools (43 per cent, compared with 18 and 14 per cent respectively). Furthermore, while 22 per cent of the students who entered non-Catholic private secondary schools in 1966 continued to university, only 6 per cent of Catholic school students in 1966 continued to university, and 4 per cent of public school students did so. Not only were non-Catholic private school students more likely than those from other schools to stay on and matriculate, those who did matriculate were also more likely than matriculants from other schools to go on to university, half did so, compared with one-third of Catholic school matriculants and less than 30 per cent from public schools.

In their study of the transition of a representative sample of Victorian male school students to higher education, Fensham and Taft (1973) found that choices of students from the three school systems for university, college of advanced education or teachers college varied considerably, as table 5.13 shows. Non-catholic private school leavers were twice as likely to enter university as a college of advanced education, and more than 5 times as likely to choose university rather than primary teachers college. Public school students, on the other hand, were about twice as likely to attend teachers college or CAE as universities. The choices of Catholic school students were more evenly distributed. The results demonstrate the importance of location: the only CAE in the industrial 'north of the Yarra region' had virtually no students from private schools.

Other studies of entrants to colleges of advanced education confirm these findings, namely that non-Catholic private school matriculants are much more likely to go to a university than to a CAE or teachers college and to enter the professional faculties of an institution rather than 'general' faculties such as arts and science. Horne and Wise (1970), studying first year business studies and engineering students in CAEs in 1969, found that the only groups in which more than 20 per cent of students came from non-Catholic private schools were the full-time business studies students in Queensland and South Australia with 25 per cent and 23 per cent respectively (Horne and Wise, 1970: 16).

Maddox (1970) found that even though the rate of entry to applied science courses at Melbourne University by non-Catholic private school matriculants was low in comparison

Table 5.13

Selected higher education institutions attended* by a sample of Victorian male students between 1968 and 1972, according to type of school attended (percentages)

Institution attended	Type of School		
	Public	Catholic	Non-Catholic private
Monash University	27	27	46
Melbourne University	19	40	42
Royal Melbourne Institute of Technology	32	39	29
Caulfield Institute of Technology	57	18	25
Gordon Institute of Technology	64	16	20
Swinburne College of Technology	42	35	24
Preston Institute of Technology	60	39	1
Primary teachers colleges	49	43	8
All institutions	31	40	35

* Institution given is most recently attended institution.

Note: These data are not compatible with tables 5.5 and 5.6 because of sampling differences and the exclusion of females and students from outside Victoria.

Source: Fensham and Taft, 1973: 12.

to other university faculties, it was still higher than rate of entry by the same students to applied science diploma courses in CAEs (18 per cent compared with only 9 per cent). For students coming from public schools, again, the opposite was true (Maddox, 1970: 93). Maddox places a rather blunt interpretation on the results:

Pupils from the different kinds of schools are present in approximately expected numbers in the full-time Science Diplomas, except for pupils from the Independent non-Catholic system. These latter only send forward about half the expected numbers to the College Science Diplomas. They are only slightly over-represented in University Science, preferring to train for the fee-collecting professions such as Medicine, Law and Architecture.

He then cites the finding of the study by Dunn *et al.* (1969b) that for students from non-Catholic private schools entry to a CAE was a relatively unattractive proposition (Maddox, 1970: 94).

There have been very few population studies which relate the type of secondary school which a person attended to the highest qualification they subsequently obtained. The most recent, a sample survey made in 1979 by the Bureau of Statistics of the population aged 14 to 64 years (excluding those at school), provides the most reliable picture that is available. The contrast is striking and shows that the occupational divisions which are prominent in the industrial structure of Australia have their parallels in the type of school in which young people are educated. Of the males whose last school was public one quarter had a trade qualification and 5 per cent had degrees; of those whose last school was non-Catholic private only 8 per cent had trade qualifications but 21 per cent had degrees. The population from Catholic schools is in between with 18 per cent having trade qualifications and 10 per cent degrees. The female population was less qualified generally. Fewer than 3 per cent from any type of school had a trade qualification and degrees were held by 2.5 per cent from public, 4.5 per cent from Catholic and 10.4 per cent from private non-Catholic schools (Australian Bureau of Statistics, 1981: 10).

Conclusions

The pictures revealed by the large number of studies which have been reviewed is pretty clear: compared with public school students those who attend private schools are much more likely to complete secondary school and, of all those who do complete, private students are more likely to transfer to higher education. Within higher education their choice is for university rather than CAE. The preference of Catholic school students lies in between those of public and non-Catholic private schools.

There are quite likely to be regional and state variations not revealed by these studies. The greater amount of research pertains to Victoria where the private school tradition is probably the strongest. There are no studies specifically of Tasmania or Queensland. It is a testimony to the extent to which education is viewed in state rather than national terms that there is only one longitudinal study of a nationally representative sample; that was done by Radford over 20 years ago. Nevertheless, in view of the homogeneity of Australian society and institutions it is reasonable to conclude that the results, derived in most part from the three southern mainland states, are representative of the country.

The studies span a period of four decades and there is no indication that over the years the rates of participation in university education by students from public and non-Catholic private schools are becoming more in keeping with their numerical proportion. If any change is taking place it is occurring on an almost geological time scale. It must be pointed out that (as table 5.1 shows) although the retention rate for public schools has been improving over the years, relative to private schools it has declined rather than improved over the last ten years.

One important change which *has* been taking place is a gradual increase in the relative size of the public sector of the school student population. The extent of this increase since 1945 (shown in table 5.14) while not great is nevertheless significant, and has occurred mainly at the expense of a decline in the Catholic proportion. However, by 1979 not only had the proportion of students enrolled in public schools begun to decrease, there was also a decline in the total number of students. The implications of both these new developments, if they continue, will be enormous both for secondary and post-secondary education.

The proportions of students from the different school systems entering university also varies markedly from faculty to faculty, though once again important differences related to the peculiarities of individual institutions occur. Overall, students from private schools tend to enter the more prestigious professional faculties of medicine and law, while public school students tend to enter education and non-vocational faculties such as arts and science.

The question we raised at the beginning of this chapter, and which needs to be considered here, is to what extent these differences in participation are to be accounted for in terms of educational experiences at school on the one hand and to socio-economic status, family educational aspirations and expectations and so forth on the other. What is the precise effect, if any, of the nature of the school a student attends on the probability that he or she will enter a university or college of advanced education.

The very high retention rates of non-Catholic private schools result from the function which these schools have in a stratified society. It is important to note that in this argument we are discussing social functions which are not the same as the objectives which particular schools set for themselves, or the purposes of individuals who send their children to them. Non-Catholic private schools have always regarded themselves as giving special attention to moral and intellectual leadership and hence have proved attractive to parents with corresponding ambitions for their children. To some extent the outcome is

Table 5.14
 Percentage of students enrolled in public, Catholic and non-Catholic
 private schools in Australia, 1945-1981

Year	N =	Type of school		
		Public	Catholic	Non-Catholic private
1945	1,101,185	75.2	24.8	
1950	1,280,729	75.9	24.1	
1955	1,691,644	76.0	24.0	
1960	2,119,532	76.1	23.9	
1965	2,437,652	76.2	19.5	4.3
1966	2,504,330	76.7	19.1	4.2
1967	2,588,339	77.0	18.8	4.2
1968	2,658,599	77.4	18.5	4.1
1969	2,716,961	77.8	18.1	4.1
1970	2,768,233	78.0	17.8	4.2
1971	2,807,645	78.2	17.6	4.2
1972	2,840,951	78.5	17.4	4.1
1973	2,853,411	78.5	17.2	4.3
1974	2,876,326	78.5	17.2	4.3
1975	2,919,280	78.7	17.0	4.3
1976	2,960,520	78.9	16.8	4.3
1977	2,994,792	78.9	16.8	4.3
1978	3,010,032	78.8	16.8	4.4
1979	2,986,931	78.2	17.2	4.6
1980	2,984,562	77.7	17.5	4.9
1981	2,987,399	77.0	17.9	5.1

Source: For 1945-60, Pratt, 1970: 5; for 1965-81, ABS *Schools* bulletins.

self-fulfilling in that admission procedures are inclined to favour the sort of student which the school seeks to promote. The location of non-Catholic private schools is likely to be in the salubrious suburbs, and the fact that tuition fees are charged increases the likelihood that many parents will be from wealthier and professional classes and will wish their children to achieve accordingly. It is not surprising therefore that non-Catholic private schools are an important part of the social mechanism which allocates members of each successive generation to privileged positions in the social order.

We have of course been discussing average characteristics of large groupings of schools and such a procedure can conceal many variations, as was discovered by the statistician who drowned wading a river of 3 feet average depth. Within the public sector, for example, are schools like Melbourne High School or Fort Street High School in Sydney which have been as selective as many academic private schools, maintaining high retention rates and regularly producing top class examination results.

Important evidence of differences in the academic orientation of students in the different types of schools is provided by Poole and Simkin (1976) who found that, in terms of measured intellectual ability, occupational and educational aspirations, and academic achievement motivation, students in non-Catholic private schools rated higher than those in Catholic schools, who in turn rated higher than those in public schools. Details are shown in table 5A.2 in the appendix to this chapter.

Why do non-Catholic private school students prefer universities rather than teachers colleges or other CAEs, and when entering university concentrate in the professional faculties rather than general faculties such as arts and science? Is it simply a case, as

Maddox (1970: 94) suggests, of private school students wanting to enter the fee-collecting professions? While it would be silly to discount the role of family socio-economic status in these matters, and the tendency for higher education students to be upwardly rather than downwardly socially mobile, there is much more to the matter than elitist aspirations, a hunger for money and prestige.

It needs to be remembered that entry to higher education in Australia—and in particular entry to university—has been highly competitive for at least the last 20 years. The number of student places has been limited, especially in the more expensive faculties such as medicine and dentistry. Until very recently selection for university entry was based solely upon attainment in qualifying examinations and academic achievement is still the over-riding criterion governing competitive entry. Students wanting to enter the most sought after institutions and the most keenly contested faculties in these institutions had to achieve the highest matriculation results. Unless we are prepared to charge the universities and their various faculty admission committees with corruption, prejudice, nepotism and a range of other aberrations in their selection process in favour of non-Catholic private school students, we are forced to the conclusion that private school students get into the more prestigious institutions and the more prestigious faculties in those institutions by virtue of the fundamental fact that they have performed better in the matriculation examinations than have their public and Catholic school counterparts.

It is the familiar story: the most advantaged social groups are best able to take advantage of the school available, which in turn enables them to dominate the most sought after sectors of higher education and thereby further enhance their social status and privilege. Less well off social groups have less opportunity to do well at school and thereby have to be content with places in higher institutions for which the competition is not so fierce, such as multi-purpose CAEs and teachers colleges.

Fensham and Taft, in their study of Victorian male entrants to higher education, found strong evidence that students varied greatly in their preparedness for higher education (as measured by level of achievement in the matriculation examination—the best single indicator of future success at a higher level) according to type of school attended:

As far as achieving the primary goal of tertiary education is concerned, the students from Catholic and Non-Catholic Independent schools were markedly more successful than those from Government Technical and High schools. In fact, while there is also an advantage for students from families where the father's occupation is middle class little of this seems to remain when the effect of schooling is taken into account. The sons of working class fathers who have managed to survive through schooling to senior levels have a chance of proceeding that is not very much below that of their schoolfellows from other backgrounds.

The same finding holds for the influence of the language background of the home as indicated by whether the parents came from an English or non-English speaking country. Once a student had reached senior levels of secondary schooling, his chance of proceeding into tertiary education was determined more by the type of school than by either his father's occupation or his language background (Fensham and Taft, 1973: 1).

While they perhaps understate the importance of family socio-economic status in determining school performance, Fensham and Taft are certainly right in their conclusion that it is largely during schooling that a student's path through higher education is mapped out, opened or closed. They found that only 20 per cent of public high school students matriculated in the 'upper third' category, compared with 28 per cent from Catholic schools and 34 per cent from non-Catholic private schools. At the same time, 50.8 per cent of entrants to Melbourne University were in the 'upper third' of matriculants, as were 34.6 per cent at Monash and only 6.8 per cent at the Royal Melbourne Institute of Technology. At the other end of the scale, no upper third students at all entered the primary colleges (Fensham and Taft, 1973: 26). Clearly, performance

at matriculation level correlated directly with the type of institution a student is likely to enter. High performing private school matriculants are therefore most likely to occupy the most prestigious tertiary places. The question remains open, however, of the extent to which this examination achievement is a result of private schools providing better teaching, admitting above average students or having students whose family environments lead to better scholastic performance.

Type of school attended was not one of the main variables investigated in the matriculation and college student surveys carried out as part of the Regional Colleges Project, but the surveys produced interesting results clearly showing a hierarchy of institutions in terms of the level of matriculation performance of their entrants. Table 5.15 illustrates that hierarchy. Beswick comments:

The oldest universities received the students with the highest average marks. There was little overlap between these universities and the least competitive colleges. The average marks of students entering most of the colleges are below the average of the lowest universities but several colleges attract students with averages slightly higher than or about equal to the newest universities.

The college sector with the best matriculation record is that of single-purpose colleges in the health professions, e.g. a pharmacy college. However, numbers are small, in these cases. The highest performance for a large sector was in the State College of Victoria, especially in the metropolitan area. Otherwise single-purpose colleges do not appear to attract students with high scholastic aptitude (Anderson *et al.*, 1975: 194).

In a situation in which higher institutions compete for students with the highest matriculation performance, and take pride in the 'cut-off' point for their entrants relative to those for entrants to other institutions, students coming from the schools which are most academically oriented and successful will win the most sought after places. In Australia these are the non-Catholic private schools, and they seem likely to retain their position in the foreseeable future.

Table 5.15

Matriculation performance: means and standard deviations of standard scores of total marks on four best subjects for students entering various types of institutions in 1974 from the 1973 matriculation sample in the Regional Colleges Project

	<i>N</i>	<i>Mean</i>	<i>SD</i>
University of Melbourne	134	63.2	5.9
University average	993	58.5	7.6
Single-purpose CAE excluding teachers colleges and agricultural colleges	33	57.0	7.4
State College of Victoria in metropolitan area	108	54.9	5.9
Newest universities (Flinders, La Trobe, Macquarie, James Cook)	128	54.3	7.1
'New' CAEs (Canberra and Hobart)	75	54.1	7.3
Single-purpose teachers colleges	451	51.9	7.2
Large metropolitan CAEs	151	50.4	8.2
Multi-purpose CAEs, average	914	50.1	8.5
Multi-purpose regional colleges	619	49.9	8.7
Victoria Institute of Colleges, average	346	48.3	8.4
'Other' post-secondary institutions (not CAE, technical or university)	85	46.1	10.4
Agricultural colleges	36	47.0	10.4
Hospitals (inservice nursing)	189	44.6	7.6
No institution (work)	1156	44.2	9.5
Technical colleges, average	210	42.7	9.2

Source: Anderson *et al.*, 1975: 1, 195.

APPENDIX

Socio-economic Status and School Type

Evidence that the socio-economic status of students attending non-Catholic private schools is higher than those attending public or Catholic schools has been gathered in a number of studies.

The national surveys of school leavers carried out by ACER in 1959-60 and 1971-2 both showed that while the occupational distribution background of public school students was concentrated at the manual worker end of the scale, that of non-Catholic private school students was concentrated in the professional and managerial groups, while the distribution of Catholic school students fell somewhere in between (Radford, 1962: 45; Radford and Wilkes, 1975: 60). Table 5A.1 shows the results for the 1971-2 school leavers.

Similar differences in the occupational background of students in the different types of schools were found in South Australia in 1971 by Blandy and Goldsworthy (1975), differences which were more marked at the year 10 level than at the year 12 level. This is as we would expect since the children of manual workers are less likely to continue past compulsory schooling than those of professional and managerial workers, with the result that in terms of occupational background the senior years of public secondary schools become more like non-Catholic private schools have been all along. Thus while 26 per cent of year 10 students in public metropolitan schools had professional or managerial fathers (in public country secondary schools it was only 20 per cent), as did 72 per cent non-Catholic private school year 10 students, for year 12 students the proportions were 32 per cent and 63 per cent respectively, with a corresponding decrease in the number of those with manual backgrounds. The decrease in the proportion of students with professional or managerial fathers between year 10 and year 12 in non-Catholic private schools was caused by the increase of students with farming backgrounds coming to the city to spend their senior years in a more academically oriented environment (Blandy and Goldsworthy, 1975: 81).

The nationwide study by Anderson *et al.* (1978) on the effects of the abolition of tertiary fees showed that on each of the three main indicators of socio-economic status—father's occupation, father's education and father's income—non-Catholic private school students were placed higher than those from either public or Catholic schools. This was found to be true of students entering metropolitan and country colleges of advanced education as well as those entering university.

Of the university entrants whose fathers had less than four years secondary education, 60.9 per cent came from public schools and 9.3 per cent from non-Catholic private schools, while of those whose fathers had a tertiary education 43.8 per cent came from public schools and 29.2 per cent from non-Catholic private schools. In the case of those with fathers in the professions 43.2 per cent came from public schools while 28.7 per cent came from non-Catholic private schools; on the other hand 69.8 per cent of those with manually employed fathers came from public schools, compared with only 4.9 per cent of non-Catholic private school students. University entrants with highly paid fathers also tended very strongly to have attended a non-Catholic private school: whereas 58.8 per

Table 5.A1
Percentage distribution of occupations of fathers of male and female
school leavers, by type of school

<i>Father's occupation</i>	<i>Type of school</i>							
	<i>Public</i>		<i>Catholic</i>		<i>Other</i>		<i>All schools</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
Professional	4.6	4.3	9.3	8.1	23.7	24.5	6.6	6.3
Professional-technical	1.9	1.7	2.2	1.8	2.2	2.4	1.9	1.8
Employer-managerial	21.0	20.8	25.6	25.2	40.8	45.9	23.0	23.3
Clerical-administrative	10.1	10.0	13.7	13.5	8.6	8.7	10.3	10.3
Sales-clerical	2.4	2.3	2.4	3.0	1.1	1.3	2.3	2.3
Skilled manual	12.7	12.3	10.6	10.8	4.9	4.5	11.9	11.5
Semi-skilled—skilled	6.9	6.9	6.3	5.6	1.0	0.7	6.3	6.2
Unskilled—semi-skilled	26.9	27.6	18.5	21.0	4.5	4.0	24.4	25.0
Nil, unemployed or unknown	13.5	14.1	11.4	11.0	13.2	8.0	13.3	13.3
Total per cent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number	46,735	43,573	4246	6584	4529	4201	55,510	54,358

Source: Radford and Wilkes, 1975: 60.

Table 5A.2
Social and educational characteristics of students in different types
of secondary schools in Victoria, 1972-3

	<i>Type of school</i>			
	<i>Public Technical N = 125</i>	<i>Public High N = 375</i>	<i>Catholic N = 175</i>	<i>Non-Catholic private N = 125</i>
Father's occupation (% managerial and professional) ^a	16.1	28.4	46.9	77.6
Occupational goals (% managerial and professional) ^a	20.2	46.1	65.6	75.2
Intellectual ability ^b mean score	94.8	106.3	112.1	115.9
Educational goals (% planning tertiary education)	26.6	41.6	59.4	78.4
Academic achievement Motivation ^c				
Mean score	15.8	16.0	16.2	16.6
Standard deviation	4.1	4.1	3.6	4.1

^a Based on 6-point occupation status scale: see Lancaster Jones, F. and Jones, F., Occupational prestige in Australia and Canada. In *ANZ Journal of Sociology*, 1972, 75-82.

^b An IQ score based on verbal and quantitative tests, developed by the Australian Council for Educational Research, Melbourne.

^c Scores on the Aberdeen Academic Motivation Inventory: See Entwistle, N., Academic motivation and school attainment, *British Journal of Educational Psychology*, 1968, 181-8.

Source: Poole and Simkin, 1976: 29.

cent of those whose fathers earned less than \$8000 per year came from public schools, this was true of only 10.4 per cent of those who came from non-Catholic private schools. The extent of these biases may be gauged from the fact that whereas more than three-quarters of Australian school students are in public schools and under 5 per cent in non-Catholic private schools, in 1977 only 52.5 per cent of university entrants were from public schools and 18.4 per cent from non-Catholic private schools (Anderson *et al.*, 1978: 144-7).

A range of important differences between students in the various types of secondary schools has also been revealed in Victoria in the 15-18 Year Old Project carried out at La Trobe University. These relate not only to occupational background, but also to educational and occupational aspirations, academic achievement, motivation, and measured intellectual ability, as shown in table 5A.2. The pattern is uniform for each variable, with non-Catholic private school students rating highest, followed by Catholic schools, then public high schools, with public technical school students rating lowest of all.

6 The Geography of Higher Education

Like the population but more so, Australian universities cluster along the seaboard. All but two of the nineteen universities are located in coastal cities, the exceptions being the University of New England, which is in the provincial city of Armidale, and the Australian National University in Canberra. CAEs are a little more dispersed, but even so fewer than a dozen of the seventy or so institutions are situated inland. This littoral preference poses difficulties of access for would-be students who live in the country, especially since the Australian tradition has been for students to remain living in the parental home while pursuing higher studies. Even within the large cities access is difficult for some because the location of universities and CAEs may be many miles from home or public transport.

Geographical location also affects access indirectly because districts vary with respect to their cultural enrichment and the quality of their schools. Young people from culturally and educationally impoverished areas, whether in the city or the country, are less likely to attain university entry standards than aspirants from more privileged localities.

The circumstances which lead to the particular location of a university or CAE inevitably involve compromise and the resolution of conflicting interests. Two characteristics of Australian society have contributed to the location of universities in large cities. First, Australia is probably the most urbanised country in the world and it seemed natural to locate institutions within the centres of population concentration. Second, there has never been in Australia the tradition of residential or student community which has led in North America and Europe to university towns. It is not an Australian custom for young people to leave home for the purpose of higher education; until recently three-quarters of all full-time undergraduates lived with their parental family, and a majority still do. Thus when the planners of post-war higher education came to decide on sites for new universities and CAEs one assumption was that they should be as near as possible to where students live. Another social differential became embodied in location decisions when the planners took into account the retention rates of schools in different suburban areas and regional variation in aspirations for higher education.

As with most of the other variables affecting participation in higher education discussed in this volume, there has been no thorough nation-wide study of the effect which geographical location has on the likelihood of students completing secondary school and entering a higher institution. The one aspect which has received considerable attention is that of rural/urban location, and the evidence is clear that students living in country areas are three times less likely than their metropolitan counterparts to continue to the final years of secondary school and enter a higher institution. For good reasons, most attention has been paid to the effect of country residence on schooling rather than on participation in higher education, and agreement about the problems involved has been extensive enough to bring about the 'institutionalisation' of the issue: country school students have been declared a disadvantaged group by the Schools Commission, and some effort has been made to provide country schools and their students with extra resources in an attempt to help overcome the special problems arising from their non-metropolitan locations (see Schools Commission, 1975: 73-81).

Distinguishing Between Rural and Socio-economic Factors

When considering the effect of country residence and schooling on participation in higher education we have to try to distinguish between the effect due to locality and that due to social class which is correlated to some extent with where people live.

The distinction becomes a little clearer if we reflect on the fact that different segments of the metropolitan areas of cities such as Melbourne and Sydney have very different rates of participation in higher education, and these intra-metropolitan differences may be greater than those between city and country students. The social 'distance' from school to university can be greater for a student from one of the older inner city suburbs than for one from the Western Plains or the Mallee. But clearly intra-metropolitan differences can be explained largely in terms of the socio-economic patterns of urban living: those from families with money and prestige, with professional occupations and the educational background which enable them to enter a profession, tend to live in the 'desirable' suburbs, so it is those suburbs which have high rates of participation in higher education. The difference is amplified when planners locate new universities in regions where choice of university is greater, thereby adding the cost and inconvenience of physical distance to the existing barrier of social distance.

A good illustration of the disparate rates of participation in university education by various parts of the metropolitan areas is provided by the *First Report* of the Price Committee which examined aspects of higher education in New South Wales in 1961. With remarkable candour this committee expressed a preference that a third university in Sydney be located on the North Shore largely on the grounds that that was where the largest proportion of Sydney students came from, even though the main population centres and areas of growth were elsewhere. The evidence cited by the committee is quite dramatic: although in 1959 27 per cent of the primary school enrolments in the metropolitan and adjacent areas were in the school inspectorates of Burwood, Granville, Blacktown, Parramatta, Windsor and Penrith, those areas produced only 16 per cent of the 1960 new enrolments at the University of Sydney; on the other hand, the school inspectorates of Manly, North Sydney, Chatswood, Hornsby and Eastwood, which accounted for 24 per cent of the primary school population, provided 41 per cent of the new enrolments at Sydney University in 1960 (Price Committee, 1961: 112-15).

Naturally intra-metropolitan differences in participation in higher education are closely related to differences in the quality and extent of schooling. Thus 'A survey of the geographical distribution of Commonwealth secondary scholarships in Melbourne metropolitan secondary schools revealed a marked correlation between school holding power and "scholarship winning" ability, with both factors strongly related to the social and economic characteristics of the school districts' (McLaren, 1970: 60).

Behrens (1978) produced evidence that retention rates at secondary schools in Hobart varied sharply according to the relative social 'disadvantage' of the school feeder area. For socially advantaged, intermediate and disadvantaged schools the percentage of students remaining to the final year of secondary school in the early 1960s was 46 per cent, 10 per cent and 4 per cent respectively. Similarly, the proportions of students leaving schools in the different categories without any formal qualification were 1 per cent, 16 per cent and 38 per cent respectively.

Intra-metropolitan differences in participation in higher education, then, have to be explained in terms of the combined effects of socio-economic disparities between suburbs, location of the institution and proximity of public transport. (On the last see, for example, Blandy and Goldsworthy, 1975: 121). In the case of country residence and its effect on schooling and on participation in higher education, the contribution of limited accessibility is generally far greater than in the city; additionally there are sometimes

different values and priorities with respect to education and employment which deter children from staying on at school.

The earliest information relating to city/country differences in participation in higher education was provided by Sanders, who found that in 1939 and 1944, although approximately half of the Australian population lived outside the capital cities, non-metropolitan areas supplied only 28 per cent of first year science students in Australian universities (Sanders, 1948: 129-30). Hohne (1951: 15-16) found that in arts faculties of the University of Melbourne country students were outnumbered by city students 3 to 1 in 1943 and 4 to 1 in 1944. Although the exact proportions have varied considerably, all the more recent studies have confirmed the relatively low rate of participation by country students in university and college education.

Country and City Schooling

As was suggested above, it is during schooling that the forces working against participation by country students in higher education are brought to focus. Therefore it is best to begin with those studies which are primarily concerned with schooling rather than higher education. One important point which must be borne in mind during the following discussion is that there are two main indications of city and country students: normal place of residence, and location of school attended. Some studies have used one, some the other, but there is no doubt that the two can give quite different results, largely due to the significant number of senior school students who live in country areas but go to city boarding schools. An indication of this is that in South Australia in 1971, while 95 per cent of third year students with homes in the country attended country secondary schools, this was true of only 70 per cent of fifth (matriculation) year students (Blandy and Goldsworthy, 1975: 42).

Verco and Whiteman (1970) examined the different schooling situations faced by students who lived in New South Wales country areas and those whose homes were in the Sydney, Newcastle and Wollongong metropolitan areas. They found that country students are less likely than those in the city to continue to matriculation level of school: of students who entered New South Wales public secondary schools in 1962, 21.4 per cent of city students and 15.4 per cent of country students continued to the final year in 1967; for private schools the retention rates were 33.2 per cent in the city and 15.3 per cent in the country. Further, if the proportion of students winning Commonwealth secondary and university scholarships is used as a measure of 'success' at school, city students did better than those from the country: in 1967 8.8 per cent of public city year 10 students and 11.1 per cent of private city year 10 students won Commonwealth secondary scholarships; for country schools the proportions were 5.7 per cent and 4.9 per cent respectively. Similarly, Commonwealth university scholarships were won by 20.3 per cent public and 23.9 per cent private sixth form students in 1967, compared with 14.3 per cent and 17.3 per cent for country students (Verco and Whiteman, 1970: 269-70).

The recent Commission of Inquiry into Poverty paid careful attention to the possible educational disadvantage suffered by various groups in Australian society, commissioning a number of important studies on various aspects of the relation between poverty and education. Some of these studies deal with the special problems of country students, particularly at school level.

Behrens (1978) investigated the education and work histories of some 1500 young Tasmanians from when they were in year 9 in 1959 until 1974, when most were 23 years old and had some work experience. The sample represented just under one-quarter of the total year 9 enrolment in Tasmanian public schools. Behrens found that even if

Table 6.1

Proportions of the 1959 Tasmanian school sample from urban and rural locations who in subsequent years enrolled at university, according to relative social disadvantage of school attended in 1959 (percentages)

Relative social disadvantage of school attended in 1959	Location of place of residence			
	Hobart	Other urban	Rural centres	Villages, hamlets
Advantaged	27	12	2	3
Intermediate	6	2	4	1
Disadvantaged	4	5	6	3

Source: Behrens, 1978: 22.

differences in socio-economic status between city and country populations were taken into consideration, country school students were still considerably less likely than those attending city schools to complete schooling and so qualify for entry to higher education. 'Of the children who were in Grade 3 in a sample of country schools, only 6 per cent completed Grade 12, whereas 13 per cent of those attending urban schools did so' (Behrens, 1978: 16). Children from small 'villages and hamlets' were particularly unlikely to complete secondary school. Behrens emphasises that in his results country children attending boarding schools in the city or elsewhere are counted as country children.

Rates of participation in post-secondary education also varied according to place of residence. Of the urban students in the original sample, 22 per cent attended technical college, 2 per cent teachers college, 2 per cent college of advanced education, and 8 per cent university. For country students the proportions were 14 per cent, 3 per cent, nil, and 3 per cent respectively (Behrens, 1978: 21). In other words, the only type of post-secondary study which attracted country students more than city students was teacher education, a profession which has drastically restricted its recruitment since the Behrens study.

Behrens investigated the important question of the interaction between problems arising from country residence and those relating to low socio-economic background. Using the measure of relative social 'disadvantage' of feeder areas of schools developed by the Interim Committee for the Australian Schools Commission (1973: Appendix E) as an indicator of the socio-economic status of localities, he measured the extent to which country location of residence and social disadvantage of the locality interact and affect likelihood of entry to university. Table 6.1 shows the results.

What is most striking about these results is that while in Hobart, and to a lesser extent in other urban centres, the degree of social advantage of the feeder area of the school attended has a strong effect on the rate of entry to university, in rural areas it appears to make no difference: regardless of whether the feeder region of the school attended is ranked as socially advantaged or disadvantaged, country students from towns and smaller settlements are very unlikely to go to university. This fits with the fact that the proportion of school students in small country towns who continue secondary schooling to a level at which they could contemplate entry to university or college is as low as that in the most socially disadvantaged (urban) schools in the state (Behrens, 1978: 33).*

* Similar results are reported by Behrens *et al.* in their detailed study of one particular country region in Tasmania, *The Huon Valley: Opportunities and Educational Priorities in a Tasmanian Country Area*, Hobart: Education Department of Tasmania, 1978, and also by Rex Stoessiger, *Leaving School in Rural Tasmania*, Hobart: Education Department of Tasmania, 1980.

Behrens' study indicates that there is a 'country' effect which operates independently of the social characteristics of the area concerned. But in at least one important study the opposite conclusion was reached: when Williams *et al.* (1980) controlled for social and family factors in their Australia-wide study of school-leaving patterns about 10 years later than Behrens they found that, all other things being equal, rural or urban location made little difference to students' decision to leave school or to stay on (Williams *et al.*, 1980: 65). Perhaps this is the first indication that the aid programs for rural education of the 1970s are having an effect. Individuals have been assisted by the isolated children's allowance, and schools by the various sorts of supplementary funding from the Schools Commission. State departments have also given particular attention to country schools; for example, the consolidation of small schools into one regional high school with pupils being bussed in provided sufficient numbers to justify provision of specialised resources.

Nevertheless there has been criticism of the method which Williams *et al.* used to measure 'rurality' and additional evidence will be required before it can be considered that the longstanding trend for low education participation by country students has been reversed. Other studies, not quite as recent, indicate country disadvantages.

In a study of school leavers in Queensland for the Commission of Inquiry into Poverty McGaw *et al.* (1977) found that the rate of retention to the final year for year 8 students in 1970 in all Queensland schools was 25 per cent. However, for the remote Southwestern and Northwestern regions it was around 14 per cent. The low rate of participation by country students in the final years of schooling was clearly connected with the students' perceptions of the career opportunities available to them in their locality; educational aspirations and expectations tended to be adjusted accordingly. A similar situation was discovered in a study of schooling in two Victorian country towns by Musgrave and Wind (1978), also carried out on behalf of the Commission of Inquiry into Poverty. In its *Fifth Main Report* the Commission commented:

Our Queensland study indicates that where aspirations are frustrated by poverty and environment, they will be lowered to coincide with expectations which may be viewed as negative, fatalistic, or simply realistic. The reality of the expectations of rural students is further elaborated by our Victorian study. Young people were well aware of what jobs were available and lower status jobs were expected rather than hoped for (Commission of Inquiry into Poverty, 1976: 64).

One important finding of the Queensland study was a correlation between level of aspiration and social class. The proportion of students whose aspirations matched expectations and who anticipated no frustration in achieving the level of education they would like increased with socio-economic status. As McGaw *et al.* point out (1977: 87), since both educational aspirations and expectations decline with socio-economic status anyway, the 'fact that the proportion of students anticipating frustration in reaching the level to which they aspired also increased with lower socio-economic level means that the problems of those of lower socio-economic status were compounded'. The reasons given for expected frustration in educational attainment were inadequate school results more often than inadequate ability, and inadequate family resources more often than a desire to earn a living.

However, research findings concerning the level of aspirations among rural school students are not unanimous either. Turney, Sinclair and Cairns (1980), in their study of the transition from school to work in isolated rural communities in western New South Wales, found that the career aspirations and expectations of country students were very high, and certainly much higher than teachers in the schools had predicted. Although the boys' expectations focused more than those of city boys on skilled and semi-skilled jobs, those of the girls were comparable to those of their peers in the city, with a heavy concentration on teaching and nursing.

In their study of educational opportunity in South Australia, Blandy and Goldsworthy (1975) found that the differences in school participation and achievement between city and country students were small, though here too country students tended to drop out of formal education earlier: in 1971 84 per cent city and 82 per cent country year 10 secondary school students continued to year 11; 53 per cent city and 37 per cent country year 11 students continued to year 12; and 59 per cent city and 54 per cent country year 12 secondary students continued to higher education.* However, the proportions of metropolitan and non-metropolitan students winning scholarships were virtually the same. Both groups of students also felt much the same level of community expectation about achievement. Differences in continuation at secondary school corresponded with differences in the occupational intentions of city and country students: a smaller proportion of non-metropolitan school students planned to enter professional, technical or administrative occupations, and a larger proportion planned to become farmers or join the armed forces (Blandy and Goldsworthy, 1975: 45-6).

The Effects of Local Tertiary Institutions on Participation

Participation in higher education, then, is closely related to the value placed on education by students and the community in which they live, to students' perceptions of the opportunities available to them where they live and the type of occupations open to them. Further information on the relation between student attitudes and participation in higher education comes from the survey of matriculation and college of advanced education students carried out as part of the Regional Colleges Project (Anderson *et al.*, 1975). A main concern of the study was to determine whether locating tertiary institutions outside the metropolitan areas significantly increases participation in tertiary education by country students.

Discussing the results of the survey, Beswick points out that 55 per cent of the 4860 matriculation students surveyed said that, if they had a completely free choice, they would prefer *not* to stay in their home town or district. This wish to move elsewhere was lowest among metropolitan students and those in the Bendigo region of Victoria (40 per cent), and highest in the north and north-western districts of Tasmania (67 per cent). As Beswick comments, that the majority of students have no long-term desire to stay in their home region must have significant implications for policy relating to regional institutions' (Anderson *et al.*, 1975: I, 223). The shortcomings of country regions mentioned most often by country matriculation and CAE students were lack of entertainment and cultural facilities, poor social life, and lack of employment opportunities (Anderson *et al.*, 1975: I, 229).

However, there were important differences in matriculation students' attitudes towards their home region according to the type of higher institution they wished to enter:

Those who would go to university gave a 65 per cent rate of preference for leaving the district, whereas only 48 per cent of those who would go to a multi-purpose college and 52 per cent of those who chose a teachers college wanted to leave. The kinds of institutions most often established in regional centres outside metropolitan areas tend to be those most often chosen by students most likely to stay at home. It is something of a chicken and egg problem (Anderson *et al.*, 1975: I, 224).

These differences correspond with differences in the importance attached by matriculation students to an educational institution 'being near to home': only 28 per cent

* The lower educational aspirations of country school students and their families in one South Australian rural district are documented by E.A. Cawthron, R.A. Craig and B. Menzies, *The Country School and School Leavers*, Roseworthy, SA: School of Management and Education, Roseworthy Agricultural College, 1980, Vol. 1, pp.231-8.

of those preferring university regarded it as a 'very desirable' characteristic, compared with 49 per cent of those preferring a multi-purpose CAE and 45 per cent of those preferring teachers colleges (Anderson *et al.*, 1975: I, 168). When it came to leaving their home region, students rarely moved anywhere other than to the capital city of their state and all regional higher institutions received a greater proportion of local matriculants 'than would be expected from the students' preferences'. This appeared to be largely accounted for by the general wish of parents that their children remain at home and by state education departments' policies of placing country teacher education students in local institutions (Anderson *et al.*, 1975: I, 238).

Another important finding was that while for students continuing to post-secondary education in 1974 entry to university was independent of the size of their home town, for the other types of post-secondary institutions there was a direct link between size of home town and type of institution entered: teachers college students typically came from a centre with a population over 500,000; multi-purpose CAE students typically came from a centre with a population between 20,000 and 99,000 or less than 5000; and technical college students tended to come from towns with a population between 5000 and 19,000. It appears that this is best understood in terms of policies governing the location of the different types of post-secondary institutions. Thus in the smaller towns technical colleges are usually the only local post-secondary institution and accordingly attract local students at a higher rate. Multi-purpose CAEs are usually located in the larger regional centres, so that, since the presence of an institution boosts local participation in that type of institution, multi-purpose CAE students tend more than average to come from those larger regional centres (Anderson *et al.*, 1975: I, 239-40). Teachers colleges are also patronised by local matriculants, but in this case students were *placed* by state education departments.

The conclusion is that while the presence of a post-secondary institution in a region does not attract significant numbers of students from other areas, it does lead to more local students remaining in the area than would be expected from the level of their disenchantment with their home regions, and 'encourages people in the district to take courses at a higher level than they might otherwise have done' (Anderson *et al.*, 1975: I, 247).

Inter-state and Inter-institution Variations

It is in relation to the State of Victoria that the most detailed information is available concerning city/country differences in participation in higher education. This information will be examined presently. It should be emphasised once again that there are quite large variations between states and between individual institutions in the extent of participation by country students. Also the results of the limited number of studies of this topic that have been carried out do not always agree.

In the ACER study of the 1959-60 school leavers, it was found that a much higher proportion of matriculants from metropolitan schools than from non-metropolitan schools went to university, and also to senior technical colleges or CAEs—at least in New South Wales and Victoria, the only states at that time to have significant numbers of such students. However, the proportions of city and country students entering teachers colleges varied markedly from state to state, without a pattern of dominance by either group emerging (Radford, 1962: 75-6).

According to Radford (1962: 73) the 'sharp contrast' in the proportions of city and country students entering university did *not* appear in Queensland. This does not appear to fit with the findings by Schonell, Roe and Middleton several years earlier that although

only 39 per cent of the Queensland students lived in the Brisbane metropolitan area, 62 per cent of students entering the University of Queensland did so (Schonell *et al.*, 1962: 26-30).

In South Australia Radford found an 'almost complete absence of university students from the non-metropolitan high schools' (Radford, 1962: 74). Blandy and Goldsworthy (1975) carried out their South Australian study more than ten years later, by which time education provisions in the country had expanded. Although they found that country students still participated less in higher education than city students, they clearly felt that any educational disadvantage suffered by country students was slight and certainly not as severe as in other states (Blandy and Goldsworthy, 1975: 127).

The contribution of education is illustrated by the example of the University of New England, a small university located in a small inland city and having most of its students in residence. Katz, Katz and Olphert (1965) found that students entering the University of New England in 1961 and 1962 were atypical of entrants to universities in New South Wales in terms of geographical origins. Rogers (1963: 51) had shown that of the new students entering arts, science and 'rural' faculties in New South Wales generally in 1961 and 1962 more than 62 per cent came from the Sydney area. At New England in those years, however, arts and science students were drawn 'almost exclusively from country areas', while students of rural science and agricultural economics, rather unexpectedly, had more varied backgrounds. In the years 1961-4 some 80 per cent of first year arts students had matriculated from country schools, as had 75 per cent of science students and 50 per cent of students in the 'rural' faculties (Katz *et al.*, 1965: 21). It remains unclear whether New England attracted country students who otherwise would not have attended university, or whether it was preferred by country students who otherwise would have gone to city universities.

Participation by Country Students in Victoria

The earliest Victorian data concerning city/country differences in participation in higher education come from the survey of the 1956 first-year student intake at the University of Melbourne. On the basis of that survey Hammond (1962: 105) remarked that 'If a student lives in a rural district he is about one-sixth as likely to come to the university as a metropolitan student. If he lives in a provincial city he is one-third as likely to come'. However, Hammond made no effort to relate these differences to the distribution between the regions of the appropriate age-group of the Victorian population at the time.

More detailed information relating to the late 1950s and early 1960s is contained in the Ramsay Committee's Report (1963) on the development of tertiary education in Victoria. For the student cohort beginning secondary schooling in Victorian Government secondary schools in 1955, the retention rate to the final matriculating year in 1962 was 21.6 per cent for metropolitan schools and 10.6 per cent for country schools (Ramsay, 1963: 53). In other words country students were half as likely as those from the metropolitan area to get to the starting-gate for higher education.

The Ramsay Report also investigated the geographical background of Victorian students who entered Melbourne and Monash universities in 1959, 1960 and 1961. Table 6.2 shows the results. The Report does not give a comparison of the distributions shown with those of the student age-group of the Victorian population at the time, but census figures for 1961 show that 65.8 per cent of the 15-19 year age group lived in the Melbourne metropolitan area, 7.0 per cent in the regional cities of Ballarat, Bendigo and Geelong, and 27.2 per cent in the rest of Victoria.

Table 6.2
Geographical distribution of new entrants to Victorian universities, 1959, 1960 and 1961 (percentages)

Year	Number	Home address			All students
		Metropolitan	Ballarat, Bendigo, Geelong	Other Victorian	
1959	2193	81.3	5.2	13.5	100
1960	2281	80.7	4.6	14.7	100
1961	2474	79.7	5.1	15.2	100

Note: Area of origin was determined by the home address given by students on matriculating. Interstate and overseas students have been excluded.

Source: Based on Ramsay Report, 1963: 55.

Table 6.3 shows the proportion of new first-year entrants to Melbourne University coming from the different regions of Victoria for the years 1962 to 1980. As may readily be seen, the proportion of students coming from the Melbourne metropolitan area is identical with that given in the Ramsay Report, and remains remarkably stable over the years. There is a slight difference in the proportion coming from Ballarat, Bendigo and Geelong, however, with the Melbourne figures for the 1970s being some 3 per cent higher than the earlier Ramsay figures, while the figures for the remainder of Victoria are correspondingly lower. These differences are perhaps due to the different criteria for geographical origin used: if location of school attended is used, as it is for the Melbourne figures, then rural students attending private boarding schools in the regional centres of Ballarat, Bendigo and Geelong will fall into that category rather than in the 'other'

Table 6.3
First year entrants to Melbourne University who attended Victorian secondary schools in their final secondary school year, according to location of school attended, 1962-80 (percentages)

N =	Year	Location of school		
		Metropolitan	Ballarat, Bendigo, Geelong	Other Victorian
2291	1962	83.1	16.9	
2568	1963	81.9	18.1	
2667	1964	82.0	18.0	
2409	1965	81.2	18.8	
2457	1966	80.9	19.1	
2552	1967	80.5	19.5	
2361	1968	80.4	19.6	
	1969	80.5	9.0	10.4
2486	1970	80.5	7.7	11.7
	1971			
2633	1972	79.7	8.7	11.4
	1973			
2655	1974	79.0	8.0	12.9
2522	1975	79.8	7.7	12.3
2644	1976	80.7	8.3	10.8
	1977			
2530	1978	82.2	7.9	9.9
2499	1980	81.7	7.8	10.5

Source: Melbourne University annual student intake surveys.

Table 6.4

Proportion of the form 1 intake into Victorian public high schools in 1963 remaining until form 6 and proceeding to the University of Melbourne, by location of school

Location	1963 intake form 1	Remaining at school until form 6, 1968		Entering the university in 1969		
		number	%	number	% of form 6	% of form 1
Metropolitan Melbourne	18,200	5793	31.8	803	13.9	4.4
Ballarat, Bendigo, Geelong	2036	500	24.6	66	13.2	3.2
Other in Victoria	10,479	2274	21.7	177	7.8	1.9
Total	30,715	8567	27.9	1046	12.2	3.4

Source: Lee Dow *et al.*, 1972: 86.

category, as they do in the Ramsay Report (the proportion of the 1969 Melbourne University entrants coming from private schools was 65 per cent for these provincial centres, compared with 52 per cent for the metropolitan area—see Lee Dow, Jones and Osman, 1972: 85). More information is needed if the situation is to be assessed accurately.

Fyfield (1970) repeats the comparison made by the Ramsay Committee of the retention rates of metropolitan and country Victorian public secondary schools. Of the cohort which began secondary schooling in 1963, the proportions remaining at school until matriculation level in 1968 were: metropolitan 31.8 per cent; Ballarat, Bendigo and Geelong 24.6 per cent; and 21.7 per cent for the remainder of Victoria.

Fyfield's data were used by Lee Dow, Jones and Osman (1972) to determine the proportions of the cohort starting secondary school in 1963 which in 1969 entered the University of Melbourne. Their results are reproduced here as table 6.4 (it should be noted, however, that Melbourne University was not the only Victorian university in 1969—additional students from the original 1963 cohort entered Monash University). Fewer students from the provincial centres than from metropolitan Melbourne entered university, while the proportion from Victorian rural areas was still smaller. There was also evidence that participation by country students varied according to faculty: participation was relatively high in engineering and science, but lower in law and medicine (Lee Dow *et al.*, 1972: 86-7).

Conclusion

Country students participate in higher education at a lower rate than city students, though the precise extent of under-participation in each state and institution is rarely known and there is an almost total lack of data covering a sufficient timespan for any trends to be discernible. The data for the University of Melbourne indicate that between 1962 and 1978 there was no change in the proportions of city and country students entering the university. However, because of the shifting in the balance of population from country to city, the extent of under-representation is diminishing. For example, between 1966 and 1971 the proportion of the population living in centres with a population of more than 25,000 increased from 66.1 per cent to 70.2 per cent, an increase of more than 4 per cent in the urban population. Over a longer timespan the change would be considerable and

certainly should not be ignored in calculations of the extent to which country students are under-represented and city students over-represented in higher education.

It is one thing to conclude that country students are under-represented in higher education; it is quite another to decide what should be done about it. Quite clearly any such decision will depend on what particular aspects of country life are regarded as hindering participation in higher education and—perhaps even more important—what (if anything) might properly be considered to be the responsibility of governments and educational administrators to change in order to make city and country participation rates more comparable.

Governments can change the resources available for schooling. On the other hand, even if they could influence the values country children derive from their parents and local community, values which may place a relatively low emphasis on formal education, would it be morally defensible for them to do so? Whether country students are to be regarded as 'disadvantaged' depends, of course, on the value attached to formal education by the observer. This is a wider problem which will be discussed more fully in the chapter on ethnic minorities.

Verco and Whiteman (1970) state the conditions they regard as 'basic' for equality of educational opportunity between city and country school students. It is worth listing them here:

1. Pre-school organized educational experiences in company with other children
2. Attendance at a primary school from the age of six years to the completion of primary education
3. Daily travel to primary school not exceeding ten miles each way
4. (a) Being taught in classes of reasonable size
(b) Being taught in a class containing not more than two grades
5. Attendance at a secondary school with the possibility of completing the full six-year secondary course
6. Daily travel to secondary school not exceeding twenty miles each way, or boarding at a suitable hostel or school
7. Wide choice of available subjects, at all levels up to the School Certificate examination
8. Choice in fifth and sixth forms of any subjects save the rarely offered ones, at all levels
9. Association with teachers having at least the minimum qualifications, being taught by a secondary school staff containing teachers regarded as necessary for the kind and stage of schooling concerned; specifically in secondary schools; teachers qualified to teach the highest levels in each of the subjects offered
10. The possibility of continuing an appropriate post-secondary education, though not necessarily resident at, home or in the town in which secondary schooling was obtained
11. Availability as required of educational and vocational guidance from experts in these fields
12. Availability of special education to the child who is intellectually or physically handicapped (Verco and Whiteman, 1970: 260).

It is obvious that according to such criteria country students will have inferior educational opportunities for a long time to come. Australia being the size that it is, with a population very thinly spread in country areas, it is highly unlikely that the conditions for equal opportunity laid down by Verco and Whiteman will be met in the foreseeable future.

Country students are less likely than city students to stay on at school to matriculation; they also do less well at school academically, winning fewer government scholarships (see table 6.5). But is this due to the differences in the standard of education available to country and city students, to differences in academic ability, or differences in educational aspiration, expectation and motivation? In its 1977-9 Report, the Schools Commission (1976) suggested there were three types of factors responsible for the lower educational

Table 6.5
Percentage of candidates successful in Commonwealth secondary
scholarship examinations, Australia 1971-3

Year	Metropolitan	Non-metropolitan
	%	%
1971	11	8
1972	24	20
1973	23	18

Source: Schools Commission, 1975: 76.

outcomes among country school children. These were, first, the geographic isolation of both the family and the school, which deprives the student of the variety of cultural and social influences and experiences available to urban students of similar socio-economic and educational standing; second, lower educational expectations held by the student's family, the student, and the local community, 'expectations which at least partly reflect the reality of poor vocational opportunities' available to rural children; and third, disadvantage arising from the lower level of educational provision in many country areas (Schools Commission, 1976: 65-6). Problems of the third sort, and to a lesser extent of the first, can be overcome with increased resources and better facilities, new technology and specialist staff. But if the low level of educational expectation and aspirations which is found in many country communities persists it would seem that even massive increases in the resources made available for education in rural areas will have only a minimal effect on the extent to which country students participate in education. There is important evidence from a number of the studies cited in this chapter that country students drop out of education early, not because they feel they are not capable of educational achievement, but because they cannot see much point in it since it appears irrelevant to their life situation and prospects as they perceive them. What is more, there are some grounds for believing that where country students do remain in formal education and continue to higher education, particularly university, it is often because they want to *leave* their home region. It is difficult to separate cause and effect here, but Beswick's finding (see Anderson *et al.*, 1975) that the majority of students who enter higher institutions want to leave their home region suggests that the long-term trend towards urbanisation will continue.

It is highly unlikely that participation by country students in higher education will be significantly improved by purely educational measures. The value attributed to education in non-metropolitan communities is too closely bound up with the total social situation of country areas for that. Especially amongst the young—but also amongst older groups, as the gradual urbanisation of the Australian population since World War II testifies—there is a widespread feeling that whatever the advantages of rural life, its disadvantages in terms of social and cultural life and in the limited range of life opportunities it offers are too great. Perhaps country areas will only be revitalised by radical alterations of social arrangements and living patterns in which education would be just a small part. These are questions which have barely touched on the national consciousness, yet would demand a reconsideration of some of the most entrenched principles of social organisation in country areas.

7 Ethnic Minorities and Ethnic Priorities

Definitions of Migrant Status

The Commission of Inquiry into Poverty (1976: 53) emphasised that a considerable range of definitions of 'migrant student' have been used in studies of the educational and social experiences of students with non-Australian backgrounds. A list drawn up by the Australian Department of Education (1975: 4) includes criteria such as country of birth of student; country of birth of one or both parents; length of residence in Australia; whether or not English was learnt as a second language; and failure to realise educational potential as a result of language difficulties. The definition which is used influences the basic data, so clearly an early decision on this point needs to be made. While country of birth of student has the advantage of being a fairly clearcut criterion of migrant status, in relation to the question of participation in higher education by minority groups it obscures the fact that the effects of immigration are felt by the second generation also; the influence of the language and culture of the country of origin—especially of the mother—continues within the family long after immigration itself, irrespective of the country of birth of the children. At the same time, length of residence in Australia greatly influences the type of educational and social experiences the individual has. All the studies discussed below used either person born overseas or at least one parent born overseas as their criterion of migrant status. The group we are talking about is 40 per cent of the Australian population.

One of the dangers of a term such as migrant—which in everyday usage roughly equates to 'non-Australian'—is that it can lead us to the careless assumption that the individuals who fall into the category necessarily have a lot in common. The linguistic and cultural backgrounds of the people in such a negatively defined category are much too varied to permit any generalisations about the effect of immigration on the education or any other aspect of the social life of the individuals concerned (see Price, 1969). For example, even the point made above, namely that the influence of the language and culture of the country of origin continues within the family long after immigration itself, is much less true of some migrant groups, such as the Dutch and Germans, than of others, such as the Greeks and Italians—at least if the *visibility* of that influence is taken as the measure of its existence (see Smolicz and Wiseman, 1971b: 12-13). As the studies discussed below show, the situation of each migrant group is different, not only because of its native culture but also as a result of the socio-economic categories from which individuals in the group have predominantly been drawn.

Not only does the migrant/Australian distinction blur the differences between migrants, it also blurs the differences between Australians. The effect of large-scale migration over the years has been to alter the meaning of what it is to be Australian: it is much more difficult now than in the past to present an image of the 'typical' Australian because, at least partly as the result of its large migrant intake, Australian society has become more diversified. One place in which this diversification of society will be reflected is in varying patterns of educational participation. Comparisons of the educational participation of migrant groups with that of the 'mainstream' of Australian

society therefore become increasingly suspect. If we look closely enough we find that a 'mainstream' does not really exist, except perhaps in the abstract form of a statistical average.

The effect of migrant background on participation in higher education has received remarkably little attention. This neglect is all the more striking when compared with the amount of attention the education of migrant children has received (see Martin and Willcock, 1976). Ronald Taft has stated that the emphasis 'on the problems of immigrant children in Australia has tended to take too much attention away from the much more serious problems of late adolescent and adult immigrants' (cited, Commission of Inquiry into Poverty, 1976: 56). Non-participation in higher education is one important indicator of the extent of some of those problems experienced by adolescents and young adult migrants. In view of the type of studies that have been carried out it will be easiest here first to discuss studies of the educational aspirations of migrant schoolchildren, and then such studies as have been made of actual participation by migrant students in higher education.

Educational Aspirations of Migrant Students

The most extensive and detailed work on the educational aspirations of migrant students has been carried out in a series of studies in Victoria. The first of these (Taft, Strong and Fensham, 1971) analysed the attitudes to post-secondary education of those students who had one or both non-Australian parents and who were included in a study of male students in the senior years of Victorian secondary schools in 1967 (Dunn, Fensham, Osmond and Strong, 1969a, 1969b). One-quarter of the original sample of more than 6000 fell into this category.

The occupational background distribution of the students varied widely according to the national origins of their parents.* Educational aspirations and eventual participation in post-secondary education also varied markedly. Contrary to what might be expected, level of educational aspiration was much less closely related to occupational background in some national groups than others, with the result that a high level of educational aspiration appeared to be more a cultural trait than a function of occupational standing.

Fathers in families with one Australian and one non-Australian parent tended to have professional or administrative occupations (41 per cent) or have their own business (20 per cent). In such families both parents and children had high educational aspirations and there was a high rate of participation in higher education, especially university. 'The findings for this group suggested that Australians who marry non-Australians are more likely to be well educated and upper middle class than are endogamous Australians as a group' (Taft *et al.*, 1971: 52). The situation was very similar in families in which one parent was British-born and one came from a country other than Britain or Australia.

Unlike the British/Other group, the fathers in families with both parents British were frequently skilled tradesmen (21 per cent) although the proportion of professionals was also high (26 per cent). The educational level of the parents in non-professional occupations was considerably higher than that of Australian/Australian parents in similar jobs, but in terms of educational aspirations the two groups were similar, except for a greater tendency for the children of British parents to plan to enter a trade.

In families with parents originating in northern and western Europe fathers tended to be skilled tradesmen (30 per cent), have professional or administrative positions (26 per

* The occupational distribution of various ethnic minorities is compared in detail in the appendix to this chapter.

cent) or have their own business (16 per cent). As in the British group, their level of education was quite high in relation to their occupations. The sons in this group were the least likely of any group to plan to study at university, tending to show a preference for a skilled trade rather than an academic orientation.

In mixed northern and eastern European marriages the male partner usually worked in a skilled trade or semi-skilled position (42 per cent), or, less frequently, had his own business or a professional occupation. Educational aspirations within the family tended to be moderate and, as in the northern European group, performance of the students at school tended to be relatively poor.

Polish families were considered separately. Polish fathers tended to be businessmen (38 per cent), often Jewish, or else well educated Catholic upper middle class or poorly educated workers, but in each case having very high educational aspirations and children who planned to study at university and did well academically. In families in which both parents came from eastern European countries other than Poland fathers tended to be either semi-skilled or skilled workers (41 per cent), have their own business (14 per cent) or be professionals (13 per cent). Their children did quite well at school and family educational aspirations were high, with a preference for study at a college of advanced education being expressed more often than in other groups.

In Italian families and in Greek families fathers were predominantly semi-skilled or unskilled workers (Italians 42 per cent; Greeks 50 per cent), with more Italian fathers than Greeks having skilled trades (18 and 12 per cent respectively). Educational aspirations were high among both groups—with Italians preferring university study and Greeks preferring technical or commercial study, often in a college of advanced education—but because the academic performance of the children at school was relatively poor the aspirations of many to enter higher education were frustrated.

The fathers of Asian students usually had their own business (49 per cent) or worked in an administrative or professional capacity (52 per cent); they were well educated and their children shared their high educational aspirations, usually with university in view. The school performance of the children, however, frequently did not match their high aspirations.

Table 7.1 summarises some of the main results of this study. The essential point which these findings underline is that among some national groups educational aspirations—especially in regard to university—were higher than among native Australians, and the level of these aspirations appears to be at least as dependent on cultural background as on occupational background.

Follow-up work on this sample of prospective higher education students was reported by Fensham and Taft (1973). Unfortunately they did not go into details of rate of entry into higher education of students of specific nationalities, using only the broad categories of 'English-speaking' (including Australians), 'non-English European' and 'Other' (mainly Asian). Nevertheless their findings are significant. Of those students from the 1967 school sample found to have entered higher institutions at any time before 1973, those of non-English European background were at least as likely to continue to higher education as those of English speaking background (49.6 per cent compared to 48.0 per cent), while Other students achieved an even higher continuation rate (Fensham and Taft, 1973: 16, 19–20).

Overall, students of a non-English European background were more likely than students with other backgrounds to enter a college of advanced education rather than university: 50.5 per cent of non-English European students entered CAEs, compared with 40.9 per cent of English-speaking students and 39.4 per cent of Other students;

Table 7.1
National background, occupational background and educational aspirations
among male Victorian secondary school students, 1968-8 (percentages)

<i>Birthplace of parents</i>	<i>Proportion of fathers in certain occupational categories</i>			<i>Proportion of students planning to enter a tertiary institution in 1968</i>		<i>Proportion of students planning to enter university in 1968 who actually did so</i>
	<i>Prof and admin.</i>	<i>Own business</i>	<i>Skilled and semi-skilled</i>	<i>University</i>	<i>CAE</i>	
Australian/Australian	35	15	15	23	15	64
Australian/Other	41	20	12	27	13	65
British/British	40	6	28	24	12	73
British/Other	31	38	10	31	6	80
N. Europe/N. Europe	26	16	42	15	13	29
Polish/Polish	12	38	31	37	18	84
E. Europe/E. Europe	18	14	41	27	26	60
N. Europe/E. Europe	16	16	42	24	18	33
Italian/Italian	5	21	39	29	16	56
Greek/Greek	3	21	30	26	32	78
Asian/Asian	32	49	6	52	4	48

Source: Based on Taft, Strong and Fensham, 1971: 41,45,50.

proportions entering university were non-English European 48.6 per cent, English speaking 57.8 per cent and Other 60.0 per cent (Fensham and Taft, 1973: 19-22). That a lower proportion of non-English European students than English-speaking students entered university, despite having indicated while at school at least as much aspiration as the latter group did to study at university, suggests that a significant number had to settle for a CAE because their matriculation results were not high enough to win them a place at university.

Taft (1975b) reported subsequent studies of the education and career aspirations of immigrant school students in Victoria. It was felt that the sample used in the earlier study was very unrepresentative, especially because it included only senior school students—those committed to a relatively higher level of educational achievement—and excluded all those leaving at the end of compulsory schooling. Therefore, in 1969, another sample was used, including 592 male and 754 female students planning to leave school at the end of that year regardless of their grade. Analysis was carried out in terms of the categories of Australian students, English speaking migrants (families with at least one parent born overseas), and non-English speaking migrants (both parents born overseas, but in many cases the student born in Australia). A broad socio-economic classification was used of working class (unskilled and semi-skilled workers), lower middle class (skilled and white collar workers), and middle class (professional, semi-professional, administrative workers, farm and business owners).

It was found that for each occupational grouping a greater proportion of the non-English speaking migrant group than either the Australian or English-speaking migrants continued at school to the final (matriculation) year, though this tendency was more marked among males than females. In the working class group 26 per cent of the non-English speaking migrant group (males 32 per cent, females 24 per cent) reached the final year compared with 16 per cent of Australians (Taft, 1975b: 34-6).

As in the earlier study, in the 1969 study of school leavers it was found that although non-English speaking migrant students tended more often to complete senior secondary schooling and continue to higher education, they did not do as well academically as the Australian and English-speaking groups, and won fewer Commonwealth Secondary scholarships. However, this varied according to occupational background: while only one of the 115 working and lower middle class non-English speaking students won a scholarship, for middle class females the proportion was 18.4 per cent—much higher than for any other group—and for middle class males the proportion was only slightly lower than that for the Australian students (Taft, 1975b: 38-9; see also Taft, 1975a).

Plans to undertake higher study were more common among students in the non-English speaking migrant group than in other groups. This was true for each of the three occupational rankings. Of the working class students, 21 per cent of the non-English speaking migrants intended to study at a higher level, compared with 13 per cent of the Australian students. Among lower middle class non-English speaking male students, plans for higher study were as common as among males of the same national background but of middle class occupational status (53 per cent and 54 per cent), while for females in the lower middle class group the proportion was even higher than for the middle class group (42 per cent and 36 per cent respectively). Anticipated participation in higher education correlated much more strongly with occupational status in the case of Australian and English-speaking migrant students than non-English speaking students: in the non-English speaking group the proportion of students planning higher studies ranged from 36 per cent of working class students to 44 per cent of middle class students; for Australian students the increase across these occupational groups was from 13 per cent

to 43 per cent; for English speaking migrant students the corresponding rise was from zero to 25 per cent, although, as in the case of the lower middle class non-English speaking group, the lower middle class English speaking students were slightly more likely to plan tertiary study than those of the middle class group (Taft, 1975b: 40-2).

Type of higher education planned also varied considerably according to national background and occupational status. Some 70 per cent of those intending to enter teachers college were lower middle and middle class Australian females; very few students from either migrant group had plans of going to teachers college. Colleges of advanced education other than teachers colleges were favoured equally by each national group, while university was the most popular goal of middle class Australians and of non-English speaking males regardless of occupational background; the highest proportion of students planning university study was 43 per cent of the middle class non-English speaking migrant group (Taft, 1975b: 43).

In 1971 yet another study of this topic was carried out by Taft in an attempt to remove the possibility of bias in the 1969 sample resulting from an under-representation of working class students and the omission of a certain number of early school drop-outs. The 1971 study involved a year 8 secondary school sample deliberately biased towards working class and immigrant students (Taft, 1975b: 49). Because of the relatively large numbers of immigrant students included the characteristics of particular national groups could be analysed (only 38 per cent of the sample had a parent born in Australia); 53 per cent fell into the non-English speaking category and 9 per cent into the English speaking migrant category. One-sixth of the non-English speaking group had arrived in Australia after the age of 11 years and were treated as a special group (labelled 'recent immigrants') which, where appropriate, was considered independently of the non-English speaking migrant group.

Overall the results of this study were the same as those of the 1969 school leaver study, the only differences being a small increase in the aspirations of working class non-English speaking males, the small representation of working class English speaking migrants in the sample (making results for that group unreliable), and a very high level of aspiration for tertiary education among middle class non-English speaking females—which Taft suggested was due to the large proportion of Jews in that group (Taft, 1975b: 52-3). Aspirations of the recent immigrants were, however, relatively low.

Table 7.2 shows Taft's results for specific national and occupational groups. As might be expected from overseas studies of the educational aspirations of Jews (see Taft, 1975b: 13-14), the level of educational aspiration among the middle class Jewish students in the sample was extremely high. Next highest—in both the occupational groups analysed—were the educational aspirations of Greeks, especially Greek males (aspirations of working class Greek females were 22 per cent lower than those of males). This high level of educational aspirations among Greek migrants has also been noted in other studies (e.g. Bottomley, 1975: 117). Educational aspirations of Yugoslavs were also of a high level, with considerably less disparity between the aspirations of males and females than among Greeks. Like the Greeks, the Yugoslav group included many recent arrivals, which as Taft (1975b: 58) comments, makes the level of aspiration in these groups even more striking.

There was a big difference among the Italian students between the level of aspirations of males and females: in relation to other national groups the aspirations of Italian males are quite high, while those of Italian females are the lowest of any group. The small number of Maltese students included in the sample also had low educational aspirations. German and Dutch males had quite high aspirations but those of females were

Table 7.2
Educational and occupational aspirations of selected national groups
in a 1971 sample of second year secondary school students in
Victoria (percentages)

Occupational class and national group	N =	Educational aspirations to matriculation level or beyond			Occupational aspirations to upper level occupation		
		Male	Female	Persons	Male	Female	Persons
<i>Working</i>							
Australian	87	38	33	36	40	46	40
British	20	*	*	32	*	*	59
Italian	46	48	10	30	46	33	41
Greek	67	63	41	52	47	52	49
Yugoslav	33	41	44	42	53	53	53
<i>Lower middle</i>							
Australian	110	51	49	50	61	57	59
British	30	47	*	46	44	*	44
Greek	17	*	*	65	*	*	63
German/Dutch	26	54	*	42	46	*	50
<i>All classes</i>							
Australian	246	51	43	47	58	56	57
British	57	55	39	47	57	50	54
Italian	68	54	19	41	59	39	47
Greek	98	66	52	59	57	56	56
Yugoslav	48	56	52	54	65	52	59
German/Dutch	43	65	39	51	55	68	62
Maltese	21	*	*	24	*	*	65
Jewish	28	100	75	89	100	92	96
Total sample	677						

Notes: 1. Asterisks denote a number which was too small to compute.
2. Jews are considered separately, though most were immigrants.
3. Apart from Jews and Australians there were insufficient numbers for analysis of a middle class group.

Source: Taft, 1975b: 57.

considerably lower. The educational aspirations of Australians appeared to be more or less average in relation to the other groups in the sample.

The pattern of occupational aspirations expressed by these students was quite similar to their educational aspirations. The occupational aspirations of the Jewish students were extremely high. Greeks and Yugoslavs had high aspirations, as did Italian males, while once again those of Italian females were low. The occupational aspirations of German and Dutch females appeared unrealistically high considering their low educational aspirations. This was even more true of Maltese students and, to some extent, of Australian and British students (Taft, 1975b: 59-60).

Blandy and Goldsworthy (1975: 54-60) in the South Australian study also found evidence of higher educational and occupational aspirations among children of migrants than among Australian children, despite the fact that the criterion of migrant status used in their study was place of birth of student rather than parents. Similar findings were also reported by Turney, Inglis, Sinclair and Straton (1978).

The results of these studies indicate that it would be a serious mistake to fail to consider factors other than occupational or socio-economic background when investigating participation in higher education. Now is the high level of educational aspirations among some migrant groups, which persists even among manual workers, to be explained?

Those who wish to explain educational aspirations in terms of social class will point to an important finding of the 1973 immigration survey carried out by the Australian Population and Immigration Council that a large proportion (31 per cent) of migrants working in unskilled or semi-skilled occupations do in fact have overseas qualifications of some sort: 7 per cent of migrants with university degrees or higher qualifications obtained overseas worked in an unskilled or semi-skilled capacity, as did 21 per cent of those with other tertiary qualifications and 34 per cent of those qualified at technician level. Here too big differences were found between particular migrant groups: for migrants from Greece, Yugoslavia and Lebanon the proportions 'underemployed' in this way were 48 per cent, 47 per cent and 44 per cent respectively, while for New Zealand, Britain and Ireland and West Germany the proportions were 19 per cent, 28 per cent and 28 per cent (Australian Population and Immigration Council, 1976: 12).

In a similar vein Blandy and Goldsworthy found that although migrants tended more often than Australians to have manual jobs, their educational level was, if anything, higher (Blandy and Goldsworthy, 1975: 62-4). However, this was only true if migrants were considered as a whole rather than as members of specific national groups.

More detail concerning the educational attainments of migrants was provided by Bourke (1971), who analysed 1966 census data. He showed that overall migrants were more likely than Australians to have completed secondary school and to have a university degree, but less likely to have a non-university tertiary qualification. Two migrant groups which fell below the Australian-born group in terms of the proportion who had completed secondary school were those from Italy and Malta. 'These two countries, together with Greece and Yugoslavia, provide relatively few persons in the higher categories. In these four cases, language problems would project some level of disability forward into those who are born in Australia from parents belonging to these groups' (Bourke, 1971: 8).

Smolicz and Wiseman (1971a: 8) make the point that immediately after World War II it was Australian policy to give top priority to manual workers when selecting people from 'displaced persons' camps to fill gaps in the economy. As a result 'some people with professional qualifications ... managed to get to Australia by camouflaging this fact'. Discussing the 'often excellent performance of the children of political *émigrés* from Eastern Europe', Smolicz and Wiseman reject the idea that it can be explained 'solely by reference to submerged middle-class influences', and look instead on the one hand to 'the high regard in which education and "culture" are held in Central and Eastern Europe' and on the other to what they call

... 'migrant drive', a type of social mobility orientation in newly arrived families without property and influence in the country of settlement but with a great desire to make good for these deficiencies in the second generation through their children's excellence in academic and professional pursuits. Although the effect of such a 'drive' would not be limited to settlers from Eastern Europe, it would, of course, be greatly magnified among the middle-class political refugees since, in their case, the children would be attempting to re-establish the family into its former social position after a period of *declassement* which almost invariably followed its arrival in Australia (Smolicz and Wiseman, 1971a: 1).

Taft's studies show that, at least as far as the high value placed on education is concerned, later migrants from southern Europe are not very different from those from eastern Europe no matter what their occupational background; nor is there any reason to suppose that their 'drive' to succeed in this way would be in any way inferior. What

needs to be considered, then, is the extent to which migrants from the various national groups are able to translate their high level of educational aspiration into the reality of achievement.

Aspiration and Achievement

Taft's 1969 study showed that especially in the lower occupational groups more non-English speaking migrant students continued at school to matriculation level than did Australian or English-speaking migrant students. Similar findings are reported by Tinney, Benn and O'Neill (1974: 116-18), Connell, Stroobant, Sinclair and Rogers (1975: 246) and Rosier (1978: 85).

Martin and Meade (1979: 13) found that 'in the case of migrant children of non-English speaking origin, educational aspirations played a bigger part in whether they remained at school to the Higher School Certificate than did IQ, School Certificate results or SES'. When 'mismatches' occurred between students' aspirations and attainments, in the case of students of English-speaking origin it was mainly due to the combination of low aspirations with medium or high IQ and school performance; in the case of those of non-English speaking background it was mainly due to the combination of high aspirations with medium or low IQ and school performance.

In retention and performance at school too important differences exist between national groups, differences which do not necessarily correlate with differences in level of educational aspiration. Martin and Meade (1979: 12) found that there was 'more variation from one ethnic group of non-English speaking origin to another than there is between all students of non-English speaking origin and all children of Australian or other English-speaking origin'. Connell *et al.* (1975: 247) found that migrant participation in senior years of secondary school was inflated by high retention rates among Asian and, to a lesser extent, Dutch students, Maltese students and students of mixed migrant background; migrant students likely to drop out at the end of compulsory schooling were those from southern and northern Italy, Yugoslavia and Greece.

Despite the high level of educational aspiration which is characteristic of students from these predominantly working class southern European migrant groups, they are nonetheless considerably less likely than Australian students to reach the upper levels of secondary schooling. The implications of this for their participation in higher education are obvious.

Occupational background cannot account for this high degree of inability to realise educational aspirations among southern European students since, given their relatively high aspirations, we would expect them, all other things being equal, to be at least as likely to continue at school as Australian students with similar backgrounds. There is little doubt that language difficulties are the main stumbling block for these migrant groups as far as post-compulsory education is concerned, although it is certainly true that a working class family of any nationality will be less likely to be able to offer effective support for the aspirations inculcated in its children than will families of a higher occupational background.

A lack of fluency in English is inevitably a fundamental handicap in all areas of school work. Bourke and Keeves (1977) found that as far as mastery of literacy (and to a lesser extent, numeracy) was concerned, students whose parents were born in countries other than Australia or Northern Europe tended to achieve less well, as did students who were themselves born outside Australia. The most important factor affecting performance appeared to be the amount of English spoken in the home. A comparatively low level of

literacy and numeracy among 'non-English born' students was also reported by Williams, Clancy, Batten and Girling-Butcher (1980: 62).

The 1973 immigration survey carried out by the Australian Population and Immigration Council (1976: 105-20) identified language as the major source of difficulties for migrants from Greece, Italy and Yugoslavia. Significantly, however, Dutch (and German) migrants were seldom unable to speak English well, and migrants from the Middle East and India also had relatively few language difficulties, most having learnt English before coming to Australia. Presumably migrants from other Asian countries would tend to be in a similar situation. Except for Asians, the national groups identified by Connell *et al.* (1975: 249) as having the highest school retention rates also turn out to be those most likely to use English at home. A survey by the New South Wales Department of Education also found the main groups of school children with language difficulties to be those of Greek, Italian and Yugoslav origin (cited by Martin, 1978: 108).

Migrant Participation in Higher Education

Unfortunately only one of the few studies that have been made of actual participation in higher education by students of migrant origin gives details of their specific national background; most limit their analysis to categories such as 'Australian', 'English speaking migrants' and 'non-English speaking migrants'. However, the annual student intake surveys carried out by Melbourne and Monash universities do provide more detailed information. This will be presented below, but first we shall examine the more general results of various studies.

Anderson and Western (1970) in their study of the social background of first year engineering and law students in 1965 and first year medical and teaching students in 1967 found that overall the proportion of university students born overseas was slightly lower than in the corresponding age group in the Australian population: 5 per cent of students were born in Britain and 8 per cent in Europe compared with 7 per cent and 11 per cent respectively in the corresponding age groups. For students' fathers the proportion born overseas was virtually identical with that for the 45-54 male age group. The lower participation rate for students born overseas is what we would expect if, as appears to be the case, rate of participation in education increases with length of time in Australia. There were differences between faculties: 'Those born in the UK comprise 3 per cent of the engineers, 5 per cent of the law students and teacher trainees, and 6 per cent of medical students. European-born students matched the UK-born in law and teaching, but were double the number in medicine and nearly four times the number in engineering' (Anderson and Western, 1970: 22).

The 1971 first year student intake at Macquarie University was used as a sample by Mitchell (1976) to examine whether the rate of participation by students of migrant origin could be accounted for solely in terms of their occupational background or whether an extra factor relating specifically to their migrant status needed to be taken into account. She found that students born overseas were slightly under-represented but students born in Australia whose fathers were born overseas were represented more or less as would be expected from the proportion of members of the workforce born overseas. The occupational background of the migrant students showed the bias towards the upper occupational categories found in all the studies of Australian students cited in chapter 9 of this monograph: in terms of occupational background there was no significant difference between students with Australian fathers and those whose fathers had been born overseas. On this basis Mitchell concluded it was occupational background that was

a factor affecting entrance to university rather than factors specifically associated with migrant background.

Mitchell's conclusion is based on the assumption that the rate of participation in university education among migrant students from any given occupational category will, all other things being equal, be the same as that of Australian students of identical occupational background. As we have seen, however, it appears that all other things are *not* equal since a number of studies have found a considerably higher level of educational aspiration among students of migrant background than among Australian students of the same occupational background. On this basis we would expect migrant students to participate more than Australian students, yet they do not. So Mitchell's conclusion must be interpreted as pointing to the fact that there are factors other than occupational background, factors associated with migrant background and probably largely associated with language difficulties, which make it impossible for migrant students to achieve the relatively high educational goals they set themselves.

Maddox (1970) in his study of applied science students in colleges of advanced education found that at a time when approximately 18 per cent of the Australian population had been born overseas, 18 per cent of full-time and 27 per cent of part-time science diploma students had been born overseas. There were significant variations in the extent to which particular migrant groups participated in either full-time or part-time study. In relation to their numbers in the general population (7.9 per cent) those born in Britain were under-represented in the full-time (4.8 per cent) and over-represented in the part-time (10.1 per cent) student groups, while the opposite was true of those born in Italy and Greece (general population 3.5 per cent, full-time students 3.7 per cent, part-time students 2.6 per cent). Other Europeans were over-represented among both full-time and part-time students, and this was also true of Asian immigrants.

Although Maddox (1970: 207-8) says that southern Europeans are poorly represented this does not accord with his figures. His point, therefore, that southern European migrants often are 'poorly educated, engaged in unskilled work, financially poor' must be interpreted as evidence of a level of educational aspiration which is significantly higher than that of Australian families of similar socio-economic status.

In Maddox's rather small sample, 37 per cent of Australian fathers had professional or administrative positions or owned a farm or business, while 32 per cent were manual workers. For the southern European group the corresponding proportions were 11 per cent and 77 per cent. Yet, if application for admission to university is taken as an indication of level of educational aspiration, the aspirations of the southern European students were higher: 58 per cent had applied for university admission, compared with 46 per cent of the Australian students (Maddox, 1970: 212, 215). British and other northern European students were significantly less interested in university study. This finding agrees with those of Taft (1975b) reported earlier.

An important difference between students born in Britain and those from other European countries was that the British-born students were much more likely to have arrived in Australia after the age of 11 years, and therefore were more likely to have had at least some of their secondary education overseas. Students with migrant origins were much more likely to study in metropolitan colleges than country colleges. In the southern European group women were severely under-represented, but in other migrant groups female participation was much the same as among Australian students (Maddox, 1970: 208-9).

The country of birth of college students enrolled in business studies and engineering courses in 1969 were investigated by Horne and Wise (1970: II, 57). There were big

differences between the states in the proportion of students born overseas: for full-time business studies students the proportion varied from 7 per cent in Queensland to 61 per cent in Western Australia, and for part-timers from 8 per cent in Queensland to 34 per cent in Western Australia. Figures for engineering students were fairly similar, with Queensland having the least students born overseas and Western Australia the most. It is important to note that the 'students born overseas' category used by Horne and Wise does not distinguish between permanent residents and overseas students (usually from Asia) in Australia only for study purposes. It is students from this latter group which inflated the proportion of students born overseas studying business studies in Western and South Australia.

In the Regional Colleges study no evidence was found that students born overseas were as a group less likely than Australian-born students to enter college, though migrant students did tend to be under-represented in teacher education. No data were gathered on university students (Anderson, Batt, Beswick, Harman and Selby Smith, 1975: I, 283).

On the other hand considerable information relating to the effects of migrant background on participation in tertiary education was gathered in the survey of all students beginning undergraduate degrees in Australian higher education institutions in 1976 carried out to determine the effects of the abolition of tuition fees (Anderson, Boven, Fensham and Powell, 1978). Data relating to over 5000 university students and a similar number of CAE students were analysed, though unfortunately data on specific national background were not collected.

Tables 7.3 and 7.4, derived from Anderson *et al.* (1978) and census statistics show details of father's country of birth and mother's country of birth for university students, metropolitan college students and country college students. Students at country colleges were much more likely to be of Australian origin than those at universities or metropolitan colleges, which is probably accounted for by the fact that overall migrant groups tend to be concentrated in the cities rather than dispersed in country centres, largely as a result of employment opportunities but also by virtue of personal preference. As was found in the Regional Colleges study, the only metropolitan students likely to attend country colleges were teacher trainees sent there by state education departments, and it was precisely in teacher training that students of migrant origin were under-represented (Anderson *et al.*, 1975: I, 222-36, 283).

In universities and metropolitan colleges students of migrant origin were over-represented in comparison to their representation in the age group; at country colleges they were under-represented. Overall, students with an overseas born father or mother participate in higher education at a higher rate than students with Australian born parents. The conclusion applies whether or not the families are of English-speaking origin. The difference in participation rates between the migrants and Australians is, however, nowhere near as large as the difference in aspirations found by Taft and others.

Some faculties and courses within colleges and universities appear to attract migrant students more than others (Anderson *et al.*, 1978: 127-8). In universities it was found that education (76.7 per cent), law (64.7 per cent) and medicine (70.4 per cent) were the most 'Australian', while commerce (59.5 per cent) and engineering (62.8 per cent) were the most 'migrant'. It is worth noting that this is almost the exact opposite of the situation existing some ten years earlier and referred to above (Anderson and Western, 1970). In metropolitan CAEs in the mid-1970s it was education (71.6 per cent) and paramedical (82.2 per cent) faculties that had the largest proportions of Australian students, while in country colleges the only non-Australian groups strongly represented in any faculty were those from Britain, Ireland and New Zealand, making up 22.2 per cent of arts enrolments and 13.4 per cent of engineering enrolments.

Table 7.3
Distribution of Australian higher education students in 1976 according to
father's country of birth (percentages)

<i>Father's birthplace</i>	<i>Universities</i>		<i>Metropolitan colleges</i>		<i>Country colleges</i>		<i>Persons in Australia age 10-19 according to 1971 Census</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
Australia	64.6	66.6	65.1	68.7	83.1	83.5	72.5	72.2
UK, Eire or NZ	13.8	13.7	12.6	14.2	8.0	8.5	10.6	10.7
Europe	12.0	12.9	13.3	11.2	4.8	5.5		
Asia	5.5	4.0	4.8	2.7	1.0	1.2	16.9	17.1
Other	3.3	2.7	3.4	2.5	2.5	1.1		
Not stated	0.7	0.5	0.8	0.7	0.4	0.2		
Total percent	100	100	100	100	100	100		
Total number	3002	2078	1947	1519	682	924		

Source: Anderson, Boven, Fensham and Powell, 1978: 125, and 1971 Census.

Table 7.4
Distribution of Australian higher education students in 1976 according to
mother's country of birth (percentages)

<i>Mother's birthplace</i>	<i>Universities</i>		<i>Metropolitan colleges</i>		<i>Country colleges</i>		<i>Persons in Australia age 10-19 according to 1971 Census</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
Australia	67.8	69.2	67.5	72.5	84.2	85.3	75.3	75.1
UK, Eire or NZ	12.1	12.7	10.7	12.1	7.8	7.7	9.2	9.3
Europe	10.2	11.5	12.5	9.6	4.5	4.7		
Asia	5.8	4.0	4.9	2.4	0.7	0.9	15.5	15.6
Other	3.4	2.1	3.4	2.8	1.8	1.3		
Not stated	0.7	0.4	0.9	0.6	1.0	0.2		
Total percent	100	100	100	100	100	100		
Total number	3002	2078	1947	1519	682	924		

Source: Anderson, Boven, Fensham and Powell, 1978: 125, and 1971 Census.

Table 7.5
 Father's occupational background of commencing undergraduate students in Australia, 1976 (percentages)

	<i>Fathers occupation</i>				<i>Total %</i>	<i>Total no.</i>
	<i>Professional</i>	<i>Other</i>	<i>Manual</i>	<i>Not stated</i>		
<i>Universities</i>						
Australia	30.9	45.7	15.7	7.7	100	3351
UK, Eire, NZ	30.9	36.2	23.9	9.0	100	699
Europe	15.1	42.3	35.1	7.5	100	629
Asia	25.3	57.0	6.8	10.8	100	249
<i>Metropolitan colleges</i>						
Australia	21.6	52.1	18.8	7.5	100	2311
UK, Eire, NZ	21.4	42.6	28.1	8.2	100	462
Europe	11.2	31.9	47.7	9.0	100	429
Asia	20.7	57.8	13.3	8.2	100	135
<i>Country colleges</i>						
Australia	16.4	53.0	20.6	9.9	100	1340
UK, Eire, NZ	24.6	43.3	21.6	10.4	100	134
Europe	12.9	38.8	38.8	9.5	100	85
Asia	50.0	16.6	23.8	5.6	100	18

Source: Anderson, Boven, Fensham and Powell, 1978: 98.

Cross-tabulation of father's occupation with father's country of birth showed that, contrary to Mitchell's finding for Macquarie University in 1971, tertiary students of non-English speaking migrant origin beginning undergraduate courses at Australian higher education institutions in 1976 were much more likely to have a father who was a manual worker than were Australian students. Details are shown in table 7.5. Although more than 30 per cent of English-speaking university students had a professional background, the corresponding proportion for those of European background was only half that; the proportion of students of European origin with a manual background (35.1 per cent) was much higher than either Australians (15.7 per cent) or English speaking migrants (23.9 per cent). In metropolitan CAEs the proportion of students with manual backgrounds was higher than at university for each national group, but the contrast between Australians and those of migrant origin was even more marked: 18.8 per cent of Australian students and 47.7 per cent of students of European origin had fathers who were manual workers. More Asian students than others had fathers whose occupation fell into the occupational category including shopkeepers, management and white collar workers, large and small employers. Here too part of the explanation must be found in the fact that many of the Asian students were temporary residents only: Raoe (1976: 22) found that 47 per cent of the fathers of overseas students in Australia in 1973—the greatest majority of whom were Asian—were either businessmen or managers. This predominantly business background of Asian students also helps us to understand why their rate of participation is higher in commerce than in any other faculty.

University Participation by Specific National Groups

An opportunity to examine the exact rate of participation by specific national groups in one major higher institution has come from the University of Melbourne's annual first-year student intake surveys which, since 1970, have recorded precise details of the national

Table 7.6
National origins of new undergraduate students at University of Melbourne, 1970-80,
according to mother's country of birth (percentages)

<i>Mother's country of birth</i>	1970 N = 2630	1972 N = 2841	1974 N = 2526	1975 N = 2596	1976 N = 2832	1978 N = 2531	1980 N = 2408
Australia	72.9	70.5	71.7	65.7	65.9	65.8	65.0
Other English speaking	8.6	8.8	9.8	9.3	9.0	9.5	8.9
Germany, Austria	2.2	2.3	2.7	2.2	2.0	2.2	1.9
Holland	1.2	1.2	1.0	1.1	1.1	1.0	1.1
Scandinavia	0.1	0.1	0.2	0.2	0.0	0.1	0.1
France, Belgium	0.3	0.3	0.4	0.5	0.5	0.1	0.3
Switzerland	0.0	0.1	0.0	0.1	0.1	0.0	0.1
Italy	2.6	2.7	2.3	4.3	3.7	5.0	4.6
Spain, Portugal	0.1	0.1	0.1	0.0	0.2	0.4	0.1
Latvia, Lithuania	0.7	0.4	0.3	0.6	0.6	0.4	0.3
Estonia, Finland	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Poland	3.4	2.9	2.3	1.8	2.2	1.7	1.4
Czechoslovakia	0.3	0.4	0.4	0.3	0.3	0.5	0.3
Hungary	0.6	0.7	0.5	0.5	0.5	0.4	0.3
Romania	0.2	0.1	0.1	0.1	0.1	0.1	0.2
Russia	0.6	0.6	0.5	0.8	0.6	0.7	0.5
Yugoslavia, Bulgaria, Albania	0.4	0.6	0.5	0.8	0.5	1.2	1.2
Greece, Cyprus	1.0	1.2	1.5	2.2	2.2	4.3	3.9
Malta	0.1	0.2	0.2	0.6	0.5	0.4	0.4
Turkey	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Asia	3.4	5.6	4.2	7.2	8.8	5.1	8.6
Other	1.1	1.4	1.1	1.4	1.0	1.0	0.0
All countries	99.9	100.3	100.0	99.8	99.9	100.1	100.1
No information N =	298	66	441	304	202	780	449
Total enrolment N =	2928	2907	2967	2900	3034	3188	2980

Note: Percentages have been calculated only on the number of usable returns. The proportion of students giving 'no information' ranged from 2.3 per cent in 1972 to an exceptionally high 24.3 per cent in 1978.

Source: University of Melbourne annual student intake surveys.

background of students. Furthermore, participation by migrant students at the University of Melbourne in 1976 can be compared with the estimates given by Price and Pyne (1976) of the size of various age groups of children of migrant origin in the Australian (and, more precisely, the Victorian) population in 1976.

The details of the national background of students at the University of Melbourne between 1970 and 1980 are shown in table 7.6. The criterion of national background used is mother's country of birth since, according to Price and Pyne (1976: 4), it is the culture and language of the mother rather than of the father which (on the whole) determine the cultural and linguistic habits of the family. Table 7.7 compares the 1976 Melbourne intake with the national background distribution of the 15-19 year age group of the Victorian population in that year as estimated by Price and Pyne. It should be emphasised that their calculations are based on *linguistic* affiliation rather than *national* affiliation (e.g. Latin America is included under Spain and Portugal).

Few clear trends are discernible in table 7.6. The percentage of students with Australian mothers decreased by 7 per cent between 1970 and 1978, suggesting that the Australian born children of the massive migration of the 1950s are now starting to have a major impact on universities. Of the migrant groups which have contributed increasing numbers

Table 7.7

Proportions of new students of specific national backgrounds, University of Melbourne, 1976, compared with proportions of 15-19 years of age of those national backgrounds in the Victorian population, 1976 (percentages)

<i>Mother's country of birth</i>	<i>Proportion of Uni. of Melbourne 1976 intake N = 2832</i>	<i>Proportion of Victoria 15-19 population, 1976</i>
Australia	65.9	78.3
Other English speaking	9.0	
Germany, Austria	2.0	1.5
Holland	1.1	1.7
Scandinavia	0.0	0.1
France, Belgium	0.5	0.2
Switzerland	0.1	0.0
Italy	3.7	5.7
Spain, Portugal	0.2	0.3
Latvia, Lithuania	0.6	0.2
Estonia, Finland	0.1	0.1
Poland	2.2	0.8
Czechoslovakia	0.3	0.2
Hungary	0.5	0.3
Romania	0.1	0.1
Russia	0.6	0.2
Yugoslavia, Bulgaria, Albania	0.5	2.1
Greece, Cyprus	2.2	3.1
Malta	0.5	1.7
Turkey	0.0	0.3
Lebanon, Syria	0.0	0.5
Asia	8.8	1.9
Other	1.0	0.7
All countries	100.0	100.0

Source: Based on University of Melbourne annual student intake surveys and Price and Pyne, 1976. The proportions derived from Price and Pyne are estimates only, based on *linguistic background* rather than country of birth and calculated on preliminary 1976 census population figures.

of students over the years the most important is the Asian group which increased from 3.4 per cent in 1970 to 8.6 per cent in 1980, after having fallen from 8.8 in 1976 to 5.1 per cent in 1978. Unfortunately more detail on participation by Asian students is not available; country-by-country statistics are lacking and moreover some Asian students are in Australia purely for study purposes—they are not the children of Asian immigrants. Before Asian immigration became significant the proportion of Asian 'overseas' students remained fairly constant at between 3 and 5 per cent and it is reasonable to assume that recent increases above this level are due to migration. Of the European national groups, countries from which the number of students has increased significantly since 1970 are Italy, Greece and Yugoslavia; the only one from which student numbers have decreased significantly is Poland. However, these changes should be understood in demographic terms rather than changing participation rates for the groups concerned. Migration from Italy, Greece and Yugoslavia has been a relatively recent affair and consequently these groups have many children at an age when they are beginning tertiary study. On the other hand there has been little emigration from Poland since the immediate post-war years, with the result that the number of Polish children of student age has declined.

An indication of some of the trends likely to affect migrant participation in higher education in the near future is given by Price and Pyne in their discussion of the demographic characteristics of ethnic groups in Australia:

The main points of interest lie in the rapid increase in the Arabic speaking population of Australia (far more heavily concentrated in New South Wales than elsewhere); the decline in the younger ages of the Greek and Italian populations (which means that children of such origins are at their maximum in the schooling system and will soon start to decline); the relatively few children of east European origin—apart from Yugoslav—left in the schooling system... (Price and Pyne, 1976: 11).

The national backgrounds of new entrants to Monash University between 1970 and 1982 are shown in table 7.8 and as can be seen, the figures are similar to the University of Melbourne results, suggesting that the Melbourne data are fairly representative.

A comparison of the national composition of the 1976 University of Melbourne intake with that of the 15-19 age group of the Victorian population in that year, given in table 7.7, shows that the groups under-represented are the English speakers (Australians and English-speaking migrants) and those from Holland, Italy, Yugoslavia, Greece, Malta and Turkey; the countries significantly over-represented are Germany, France, Latvia and Lithuania, Poland, Czechoslovakia, Hungary, Russia and—though again the result is unclear because of the unknown number of Asian 'overseas students'—Asia.

These results are consistent with those of the studies of the educational aspirations of migrant children in Victoria carried out by Taft (1975b) and Taft, Strong and Fensham (1971), and also the findings of other studies. The especially high participation rate for Polish students at the University of Melbourne confirms the earlier finding by Taft *et al.* (1971), while the results for Latvia, Lithuania, Russia, Czechoslovakia and Hungary vindicate the remarks made by Smolicz and Wiseman (1971) on the high regard for education and culture common in central and eastern Europe. Dutch students, as Taft *et al.* (1971) found, seem comparatively uninterested in university study (though German students are). But it is the large southern European groups which are particularly under-represented. Despite the high aspirations of Greek, Yugoslav and Italian students, their rate of participation is very low—the proportion of Yugoslav students entering Melbourne University in 1976 was less than one-quarter of the proportion of Yugoslavs in the 15-19 age group. Maltese students, who indicated a low level of aspiration in Taft's studies, were also badly under-represented, as were the Turks, a recently established

Table 7.8
National origins of new undergraduate students, Monash University, 1970-82,
according to mother's country of birth (percentages)

<i>Mother's country of birth</i>	<i>1970</i> N = 2199	<i>1971</i> N = 2089	<i>1972</i> N = 2451	<i>1973</i> N = 2407	<i>1974</i> N = 2885	<i>1975</i> N = 2609	<i>1976</i> N = 2576	<i>1980</i> N = 2394	<i>1982</i> N = 2374
Australia	70.8	69.8	67.8	69.1	69.0	69.5	64.3	58.3	53.3
Asia	3.7	5.6	7.5	4.5	4.3	4.0	6.7	8.2	14.2
Germany	1.8	1.9	2.2	1.7	1.5	2.1	2.1	1.9	1.4
Greece	0.5	0.8	1.1	1.0	1.3	1.5	2.6	5.8	5.4
Holland	1.3	1.5	1.1	1.5	1.0	1.4	0.9	1.0	0.9
Italy	1.3	1.9	1.7	2.1	2.3	2.1	2.7	3.4	3.4
United Kingdom	8.7	7.7	8.7	8.1	9.1	8.8	9.9	8.9	8.6
Yugoslavia	0.5	0.4	0.4	0.7	0.5	0.6	0.6	1.4	1.5
Other European	11.4	10.6	7.2	7.7	6.1	5.5	6.1	6.3	5.5
Other*			2.4	3.5	4.8	4.4	4.2	4.9	5.7
All countries	100.0	100.0	100.1	99.9	99.9	99.9	100.1	100.1	99.9

* Includes 'no response' category (approximately 1 per cent) for 1973-6.

Source: Monash University annual student intake surveys.

migrant group, and the Lebanese, absent from the Melbourne University intake but representing 0.5 per cent of the 15-19 age group.*

There is reason to believe that university participation by students from Asian cultures would vary as much, if not more, than variations among students of European background. Because of the veneration for learning and education characteristic of Chinese culture—a veneration which is probably not equalled even amongst Jews—it would be logical to expect considerable over-representation at university of the migrants of Chinese origin, who made up 0.6 per cent of the 15-19 age group in Victoria in 1976. Participation by students with other Asian backgrounds would probably be less. It is worth noting that the great majority of overseas students in Australia are also of Chinese origin—coming from south-east Asian countries in which the Chinese are ethnic minorities as well as from Hong Kong and Singapore: the number of Chinese students coming to Australia for study in a private rather than sponsored capacity is, as Rae (1976: 29) comments, an indication of the importance placed by the Chinese on educational achievement—and also, of course, of their relative affluence in many parts of Asia. Already the young Vietnamese, a majority of them ethnic Chinese, are demonstrating their determination to succeed in school. They will become a significant Asian category in universities in the next few years.

Conclusions

Despite the relatively small number of students in most samples used in research on national background, the findings are consistent.

It is clear that the level of educational aspiration varies markedly between national groups, and that working class students of one nationality may have much higher educational aspirations than those of another. Thus, aside from Jewish students and those originating in eastern Europe, the national groups with markedly high levels of aspiration are those which are predominantly working class—Greeks, Yugoslavs and Italian males (but not Italian females). The educational aspirations of these migrants, especially those of low socio-economic status, tend to be higher than those of Australians and British migrants of similar socio-economic status.

One important implication of this is that it becomes impossible to regard the attitudes towards education of Australians or any other national group of a particular socio-economic strata as being either 'natural' or inevitable; it makes it very difficult to believe in class attitudes towards educational participation, if by class attitude is meant an attitude universally determined by socio-economic status alone. It seems clear from these studies that values and attitudes which are culturally acquired are just as important in determining attitudes towards education.

It could be argued that the high educational aspirations among migrants—and working class migrants especially—are not representative of national or cultural values but only of *migrant* attitudes. In other words, as some writers have argued, migrants as a group are strongly upwardly mobile, with ambitious social aspirations—this leads them to emigrate in the first place—and therefore they place a higher value on educational achievement than is characteristic of their social class, just as they place high value on other forms of individual achievement. If this theory, that ambition leads to migration, is to be accepted, however, we would expect high educational aspirations among all migrant groups. But this is not the case; there are large variations between migrants from

* Young people from the Turkish and Lebanese ethnic groups are the subject of an important recent study by Young, Petty and Faulkner (1980: 155-6). Among their findings was that although Turkish and Lebanese students tend to stay at school to a greater age than do Australian students, the proportion obtaining their Higher School Certificate is much smaller.

different countries, and the theory best fitted to the facts is that they bring the culture of their homeland with them.

The second main conclusion to be drawn from the studies is that the actual extent of participation in higher education by students of different national backgrounds does not necessarily correspond with their level of aspiration. Some migrant groups—particularly those from southern Europe—find it much harder than others to achieve their aspirations. It appears that socio-economic status plays less part in determining educational aspirations than it does in determining the extent to which those aspirations are attained. It is predominantly working class migrant groups that have limited success in relation to their level of aspiration when it comes to actually entering a higher institution. Nevertheless, it does seem that migrant students are more likely than Australian students to be of working class origin and that their high aspirations drive them to overcome difficulties associated with low status. Language difficulties and the learning problems which follow from them seem to be as relevant as socio-economic disadvantage to the difficulty southern European migrants have in fulfilling their educational ambitions: few have any knowledge of English before coming to Australia, and even children born in Australia frequently learn English only as a second language. Thus Greek, Italian and Yugoslav children often drop out of school early despite their high aspirations, while Dutch children, whose aspirations are relatively low, stay on because they are usually proficient in English and have fewer learning problems.

However, it seems clear there is more to the problem than this. For example, in her discussion of the poor rate of participation in tertiary education by Greeks in the inner suburbs of Sydney, Eva Isaacs (1981) makes the following remarks:

One of the main reasons advanced by school authorities is the parents' unwillingness to see children through the educational process, harnessing them into the workforce. While parents admonish children to study, they crowd their day with household chores and related trivia. The children's school performance does not suffer merely as a result of this. Some parents insist that they leave and join the labour market; some children attend school and perform paid jobs in local stores to supplement family income. However, some of the reasons for their 'not making it' are the self-perpetuating, inbuilt discriminatory factors in texts, test material and administrator and teacher attitudes. Those now at school, and those who recall their days there, quote instances of the teachers' disregard of their presence in class, belittling attempts at argument and downgrading them.

In this study, 50 per cent of pupils had repeated final year at school in an effort to obtain matriculation, and failed. Their parents urged them to stay at school, regarding the entry to a university as automatically following the end of secondary schooling. Their aspirations for the children's educational and occupational future were high: 52.3 per cent of parents aimed at professional status for sons; 29.9 per cent for daughters. . . . The children's more realistic appraisal of probabilities revealed 13.1 per cent of girls and 24.3 per cent of boys aiming at the Higher School Certificate, and 11.2 per cent of the former and 14.9 per cent of the latter seeking professions.

The extremely high aspirations voiced by such parents for their children, Isaacs suggests, should perhaps not always be taken at face value, but rather as 'symbols of anxiety and fear lest the children end up in an unskilled labourer's job' of the sort which all too often is the lot of the parents themselves.

While *overall* students of migrant background may be at least as likely as Australian students to undertake higher studies, this is only because some groups—notably the Asians and the eastern Europeans—participate in higher education at a rate much higher than their presence in the population and so compensate for the other groups—mainly the southern Europeans—whose participation rate is relatively low. At the same time, although southern European migrants are under-represented at university, what evidence there is suggests that they are more successful at gaining entry to CAEs, where academic

competition for entry is not as severe. In the future they may be joining the competition for university entrance.

These differences between national groups in terms of educational aspiration and achievement raise important questions concerning the idea of educational disadvantage. Educational disadvantage—indicated by poor achievement and early withdrawal from school—is conventionally attributed to personal circumstances which prevent the individual from realising his or her full educational potential. What then are we to say when it appears that cultural values, especially those that ascribe a low value to educational achievement, are a major factor in depressing educational achievement? This question is all the more pressing because of the prominence given to the concept of a multi-cultural society in recent years: in a genuinely multi-cultural society, which we are told Australia is or at least should be, a place where different lifestyles and value systems co-exist in harmony, with respect, there should be room for different values, those concerning education included.

In such a multi-cultural society educational disadvantage is the measure of the extent to which members of some social groups are not able to realise their educational aspirations, regardless of what the level or direction of those aspirations may be. The objection will be raised, by those who have strong views about the political and social oppression of minority groups, that it is in fact the control and suppression of people's aspirations that is the most powerful form of social control; when a group no longer even aspires to raise itself—through education or any other process—its oppression is complete. Thus activists see the need for consciousness-raising among those groups they regard as oppressed—Aborigines and women are the obvious current examples—to ensure that they will *want* to change their position. The argument is valid and important, yet has implications which make one uneasy. It implies a judgment that the reformer knows better than the individuals concerned what they should aspire to and where their interests lie—a view which, although sometimes well-founded, nevertheless has a totalitarian ring to it. It can be argued that the whole doctrine of educational disadvantage applied to ethnic minorities implicitly involves a policy of assimilation, an attempt to maintain a homogeneous society.

Probably where ethnic minorities are concerned most of us would be ready to admit there is room for different estimations of the importance of education, and accept that if the aspirations of British or Dutch migrants are often channelled in directions other than higher education they should not be regarded as educationally disadvantaged if their rate of participation in higher education is relatively low, whereas Yugoslav or Greek migrants would certainly be disadvantaged because their aspirations are much higher. The differences are international, have a solid geographical foundation, and allow us to feel cosmopolitan.

What of some of the other social groups discussed in these chapters? What about women, country people, Aborigines? Do we not need to make allowance too for variations in the aspirations and needs of members of these groups before judging whether or not a certain level of participation in higher education constitutes educational disadvantage? There is a lot of disagreement in society about whether it is desirable or even permissible for members of such groups to hold values and attitudes which mark them off from other members of the community. But could it not be argued, for example, that Australia would be enriched rather than impoverished by recognition of the fact that *regional* cultures exist, that differences in outlook between metropolitan and rural communities are natural and perhaps desirable, even when some country groups are perverse enough to deny some of the deepest convictions of urban educationists? There is no reason to assume that a multi-cultural society need necessarily be divisible only along lines of international migration.

APPENDIX

Occupational Distribution of Ethnic Minorities

The occupational distribution of different migrant groups in the Australian workforce varies markedly. This is one case in which what is 'obvious' to the casual observer is amply confirmed by census statistics.

The 1961 census statistics have been discussed in detail by Zubrzycki (1969), who identified a pattern of distribution for the various ethnic groups which corresponds well, for example, with that described by Taft, Strong and Fensham (1971). Dominant in the professional category were the Australian born—largely by virtue of the fact that at this time graziers and wheat farmers were included in this category—English speaking migrants, those from eastern Europe and those from China and India. The administrative and managerial category included many Greeks and Italians who were self-employed shop proprietors. The German and Dutch migrant groups included a high proportion of skilled craftsmen, while the national groups most concentrated in the unskilled category were—in decreasing order—Greeks, Italians, Yugoslavs, Maltese and Poles.

The occupational distribution of some main ethnic groups according to the 1971 census is shown in table 7A.1, while the highest level of qualification reached by males 15 years and older in 1971 is shown in table 7A.2. In general there appears to have been little change between 1961 and 1971 in the position of migrant groups in the workforce.

In 1973 a survey of 7700 of the 360,000 families, the heads of which had arrived in Australia some time since 1963, was carried out by the Australian Population and Immigration Council (1976). This survey showed that the main difference between the occupational distribution of heads of migrant families and other family heads was the much greater concentration of the former in the category of 'tradesmen, production process workers, labourers' (59 per cent compared with 38 per cent). But of course differences between particular migrant groups were marked. Thus among migrants from Greece, Italy and Yugoslavia 'disadvantage or deprivation is the average rather than a minority experience' (APIC, 1976: 104), in contradistinction to those from northern Europe. Because of the greater absolute numbers of migrants from Britain and Ireland, however, 34 per cent of all the migrant families whose earnings fell below the poverty line originated in those countries, only slightly less than the total of 36 per cent coming from Greece, Italy and Yugoslavia (APIC, 1976: 115).

Table 7.A1
Occupations by country of birth of the male Australian workforce age 15 and older, 1971 (percentages)

<i>Country of birth</i>	<i>Professional</i>	<i>Administrative</i>	<i>Clerical, sales</i>	<i>Farmer and related</i>	<i>Mines, transport and communication, sport, services, armed forces</i>	<i>Craftsmen, production workers, labourers</i>
Australia	9.1	9.3	16.5	12.1	15.0	38.0
Britain, Eire	10.6	8.7	14.7	3.6	14.5	47.9
Germany	9.8	8.0	10.8	2.8	11.8	56.8
Italy	1.9	5.5	6.4	9.9	10.5	65.8
Greece	1.2	7.4	9.9	2.8	12.4	66.4
Yugoslavia	2.2	2.4	3.0	4.0	8.9	79.6
Other	11.8	9.0	12.1	3.7	12.2	51.2

Source: 1971 Census. Those whose occupations were not adequately defined have been excluded (4.6 per cent of total).

Table 7A.2
 Highest level of qualification obtained by country of birth, male Australian
 workforce age 15 and older, 1971 (percentages)

<i>Country of birth</i>	<i>Level of qualification</i>					
	<i>No vocational qual.</i>	<i>Trade</i>	<i>Technician</i>	<i>Non- degree tertiary</i>	<i>Bachelor degree</i>	<i>Higher degree</i>
Australia	73.7	16.9	3.3	3.4	2.4	0.3
New Zealand	60.1	21.2	4.8	5.6	6.0	2.3
Britain, Eire	63.2	24.2	5.6	4.0	2.4	0.7
Germany	47.1	41.0	5.3	3.4	2.5	0.7
Holland	55.8	32.4	6.0	3.7	1.7	0.4
Poland	72.3	19.0	2.8	2.4	2.7	0.9
Yugoslavia	75.1	22.2	1.2	0.8	0.5	0.1
Italy	82.1	16.1	0.8	0.6	0.4	0.1
Malta	82.3	15.8	1.0	0.6	0.3	0.1
Greece	90.4	8.4	0.6	0.3	0.2	0.0
Other European	60.4	26.1	4.7	3.7	3.8	1.2
Other	69.2	12.4	4.5	4.4	7.7	1.9

Source: 1971 Census. Those for whom no information was available have been excluded (1.0 per cent of total).

8 Aborigines and the Irrelevance of Education

Aboriginal Culture, White Education

In the voluminous material published on Aborigines higher education is seldom mentioned. The reason for this is dreadfully simple: very few Aborigines ever reach a position where they can realistically consider education at a higher level. With good reason, most research on Aboriginal education has been concerned with schooling and the problems of creating a system of educational provision which is relevant to Aboriginal needs and which strengthens rather than undermines Aboriginal culture and self-identity. Western education is only one aspect of the conflict experienced by Aborigines as they find themselves caught between two radically different cultures, perhaps sometimes leaning towards one, but never completely able to ignore the other.

In its *Fifth Main Report: Poverty and Education in Australia* (1976) the Commission of Inquiry into Poverty gives an excellent summary of the situation in Aboriginal education and its relation to the social and economic plight of the vast majority of Aborigines. If we give little attention to these wider social problems here it is because we believe it has already been admirably done by the Commission rather than because we do not consider them relevant. Our attention will be focused on Aboriginal participation in formal education and the ensuing implications for post-school study.

The definition of Aboriginal status generally used in research work is that of self-definition as adopted by the Bureau of Statistics: an Aboriginal is someone who, for Census purposes, identifies him or herself as being an Aboriginal. About 0.8 per cent of the population do. For most purposes this is a satisfactory definition, but it has the drawback that situations have occurred in which Aborigines, either because of a very negative self-image or through fear of discrimination, have avoided identifying themselves as Aborigines (Wentworth, 1973: 7). This is probably much less likely to happen now than in the past, but it needs to be mentioned because the result of such a practice is that those Aborigines who perhaps are experiencing the problems and conflicts common among their people more acutely than others simply vanish—at least from the eyes of bureaucracy and statisticians.

The situations in which Aborigines live in contemporary Australia vary greatly, ranging from isolated settlements on reserves, which may be relatively close to ancestral lands and may maintain many elements of traditional tribal culture, to the inner suburbs of the capital cities, where relations and the support of tradition are usually absent and the surroundings alien. Traditional and urban Aborigines often have different needs, but in regard to formal Western education their situation remains fundamentally the same: how can they benefit from an education system which in the past has debased their culture or, at best, ignored it?

Although there are some similarities between the situation of Aborigines and that of migrants, due to their being members of a minority culture widely 'devalued' by the social

mainstream (Martin, 1971: 102), the differences are greater. Certainly Aborigines themselves feel that the problems they experience are different from those experienced by migrants. As stated in the Schools Commission Report for 1976-79: Aborigines 'feel their problems are not those of the ethnic minorities: rather they relate to being both the original inhabitants and black' (Schools Commission, 1975: 99). It is impossible to ignore the historical fact that modern Australian society has been built at the expense of its original inhabitants, whose land was taken from them, their population decimated, and their traditional life-style all but destroyed. It is against this historical background that the question of Aboriginal participation—or refusal to participate—in Western society and its formal education system must be understood.

Secondary Education

According to the 1971 Census, 3.5 per cent of Aborigines aged 15 years and over had proceeded beyond third year of secondary school, compared with 29.6 per cent of the non-Aboriginal Australian population. In 1973 there was not one state in which even half of the 10-19 year old Aborigines were enrolled at secondary school, despite the fact that overall since 1966 Aboriginal secondary school enrolments had risen some 13 per cent. Proportions enrolled in 1973 ranged from 46.6 per cent in Victoria to 11.3 in the Northern Territory (Commission of Inquiry into Poverty, 1976: 187-9). Broom summed it up: 'They enter school later, progress slower, quit sooner and terminate at a lower level' (1970: 153).

Furthermore, actual school attendance by Aborigines has been much lower than the enrolment figures suggest.* The high rate of non-attendance by Aboriginal children is a strong indicator of the lack of relevance Aborigines have found in the education available to them, the scepticism and disenchantment they feel towards what commonly are regarded by them 'as white institutions ordered and administered by white people and as vehicles for the continuation of the traditional superordinate-subordinate situation of whites and blacks' (Commission of Inquiry into Poverty, 1976: 185). The Commission of Inquiry into Poverty presents figures which show a marked drop in the rate of attendance of Aboriginal children at special primary schools in reserve areas of the Northern Territory between 1966, when attendance ranged from 70 to 97 per cent, to 1974, when the attendance rate ranged from 42 to 77 per cent. It is surely no coincidence that this drop in school attendance among Aboriginal children in traditional communities occurred at a time when the out-station movement began to develop: a movement by Aborigines to return as far as possible to their traditional lands and way of life, independent of white society except for certain skills, in an attempt to maintain tribal society and culture.

Post-Secondary Education

Few Aborigines have entered post-secondary institutions in the past, and fewer have graduated. According to the Census there were only 78 Aboriginal people with degrees in 1976. Table 8.1, reproduced from the Commission of Inquiry into Poverty's report, shows Aboriginal enrolments at schools and higher institutions in 1973; tables 8.2 and 8.3 show the number of students studying under the Aboriginal Study Grants Scheme in the first half of 1976 and the number of Aboriginal enrolments in technical and further

* The low rate of participation in secondary education by Aborigines in South Australia has been documented by J. Binnion, *Secondary Education for Aborigines: A Report on an Action Research Project in South Australia*, Adelaide: SA Education Department, 1976.

Table 8.1
Estimate of Aboriginal enrolments, and school age populations,
by state and the Northern Territory, 1973

State	Enrolments			School age population (5-14 years)	Enrolments		
	Pre-school	Primary	Secondary		University	CAE	Teachers college
NSW		*	3085	8399	15	1	10
Vic.	109	988	690	1701	13	0	1
Qld	*	*	2854	15,000	20	4	21
SA	*	2065	677	2846	0	3	5
WA	793	6174	1941	8321	8	0	3
NT	916	3970	614	6599	1	0	17

* No information available

Source: Commission of Inquiry into Poverty, 1976: 190.

Table 8.2
Number of students studying under the Aboriginal Study Grants Scheme,
January-June 1976, according to field of study

Field of study	Full-time		Part-time		All students		
	Male	Female	Male	Female	Male	Female	Total
University	29	16	5	2	34	18	52
Teacher training	17	38	2	2	19	40	59
Other tertiary	26	30	3	4	29	34	63
Technical	48	31	39	13	87	44	131
Matriculation/Leaving	36	27	15	18	51	45	96
Other schooling	11	3	14	35	25	38	63
Literacy/remedial work	23	16	13	32	36	48	84
Secretarial/typing	6	407	3	71	9	478	487
Dressmaking	—	—	—	116	—	116	116
Other vocational	156	70	25	29	181	99	280
Other	29	28	20	115	49	143	192
Total	381	666	139	437	520	1103	1623

Source: Aboriginal Consultative Group, 1976: 12.

Table 8.3
Aboriginal enrolments in TAFE institutions, 1975,
according to level of course and State

	NSW	Vic.	Qld	SA	WA	Tas.	Australia
Diploma	—	2	—	—	6	—	8
Certificate	3	27	2	7	21	3	63
Apprenticeship	36	4	20	6	22	—	88
Pre-employment	152	19	53	57	147	—	428
Other	124	8	17	160	2997	—	3310
Total	315	60	92	234	3193	3	3897

Source: Survey by Dr L. Kendall, Canberra CAE, cited by Aboriginal Consultative Group, 1976: 18.

education institutions in 1975. By 1980 participation had increased appreciably and there were 191 Aboriginal students in degree and 277 in diploma programs in universities and colleges of advanced education throughout Australia. Another 413 were enrolled in associate diploma and certificate courses (Commonwealth Department of Education, 1981). Nevertheless, the rate of participation in post-secondary education remains extremely low, and although over the years the Aboriginal population—and hence the number of potential Aboriginal students—will certainly increase, since the Aboriginal birth rate is approximately double that of the general population, participation by Aborigines in post-secondary education will not approach the community average until the overall economic and social conditions of Aborigines are improved drastically. Nor can post-secondary participation advance greatly until there is an adequate base of participation in primary and secondary school.

In the meantime a number of universities and colleges have established special programs for Aborigines in teacher education, research, tutorial assistance and counselling. Four universities have special entry schemes. These and some TAFE initiatives are described in the report of a working party on Aboriginal education of the Federation of Australian University Staff Associations (1981).

Aboriginal Attitudes towards Education

Despite evidence in the form of lower attendance rates and increased dissatisfaction among traditional Aborigines with the sort of schooling available for their children, there is no reason to assume that even those Aborigines whose commitment to traditional culture is strongest regard formal education as being without value or believe that Western civilisation has nothing to offer them. On the contrary, traditional Aborigines do value education and appreciate the benefits that can be derived from it, but, as the evidence of a number of studies shows, they believe that the benefits of education should not be sought at the cost of their own heritage, that education should be subordinate to Aboriginal cultural values and aspirations rather than the other way round. Nor is there any evidence that urban Aborigines—who no longer have the option of a traditional lifestyle open to them—value education lightly despite their low level of participation and academic achievement.

This is amply established by the statements concerning education made by Aborigines throughout Australia gathered by Watts (1979, 1981). Watts sums up the general concerns evident in those statements as follows:

There are diverse emphases but a common thread relates to the education of children in both cultures and a wish to see the children grow in competence in Western skills and knowledge but also retain their own culture and its associated knowledge, skills and values.

The ... statements ... exhibit concern for the achievement of the basic skills, for knowledge that will permit job access, including emphasis by some on education to a tertiary level, for the development of skills to live in the modern industrialised world, and/or to contribute to their own communities, and concerns expressed also by many that children learn about their own culture, some seeing this as part of the school program but some believing it should be taught by the Aboriginal people themselves (Watts, 1981: I, 145).

Watts (1976), in her evaluation study of the Aboriginal Secondary Grants Scheme, investigated the attitudes towards education of the parents of 916 Aboriginal secondary school students, of whom approximately one quarter lived in the cities and the remainder in country areas throughout Australia. She found that less than one-tenth of parents regarded school unfavourably and more than half regarded it favourably. Contrary to what might be expected, parents whose occupations were skilled or higher were more inclined than those who were unskilled or semi-skilled workers to be critical of school

(Watts, 1976: 36). This is perhaps to be explained by the fact that those in skilled occupations would themselves have had more experience of the education system and so be more aware of its shortcomings and of possible alternatives.

Considering their own socio-economic position and educational level, Aboriginal parents held quite high educational ambitions for their children. Forty-five per cent of mothers and 39 per cent of fathers wanted their children to attend senior secondary school, while 6 per cent of mothers and 10 per cent of fathers hoped for higher education for their children; 7 per cent of mothers and 5 per cent of fathers also specified a wish for some form of post-secondary education such as business college or an apprenticeship. But even these figures understate the level of aspirations held by Aboriginal parents because 22 per cent of mothers and 31 per cent of fathers either made no response to the question or merely answered 'as far as possible' when asked to which level of education they wanted their child to proceed (Watts, 1976: 37).

As might be expected, the level of aspiration of parents for their children tended to be higher among those living in the cities than among those living in Aboriginal communities, reserves or isolated areas—particularly in relation to higher education—and higher among those with skilled or professional occupations than those who worked in an unskilled or semi-skilled capacity (Watts, 1976: 38).

Watts also examined the attitudes of Aboriginal students towards education. Only 39 per cent of the students did not want to continue their education past the junior level of secondary school: 22 per cent aspired to senior secondary education: 21 per cent to post-secondary study and 8 per cent to higher education. Watts (1976: 68) comments that 'As one examines the distribution by grade enrolment of all Aboriginal and Islander students in receipt of the Grant in June 1974, when only 5 per cent of metropolitan and 3 per cent of non-metropolitan students were in the final two years of secondary school, one realises how high the aspirations of these students are'. Higher education tended to be the aspiration of city students rather than those from rural communities, but—rather surprisingly—of the children of unskilled workers rather than those whose parents were skilled workers or professionals. What is also striking is that more girls (44 per cent) than boys (28 per cent) aspired to post-secondary or higher education and had higher expectations. Students whose performance at school was of a high level tended to have higher aspirations and expectations than those whose was not, and their parents also tended to have higher aspirations for them (Watts, 1976: 67–9, 83, 90–1).

Other studies have reported similar attitudes among Aborigines. Biddle and Smith (1970) studied the Aboriginal population of the Brisbane metropolitan area in 1965–66. Predictably they found that the educational achievement of the Aborigines fell 'within the lowest category in the country' (Biddle and Smith, 1970: 278). Of the adults and those who had already left school 87.6 per cent had never been to secondary school and only 1 per cent had any experience of post-secondary education. Nevertheless a high 40.2 per cent had aspirations for their children to go on to university, even though most realised the unreality of that aspiration, with only 6.5 per cent expecting their children to reach university level (see also Smith and Biddle, 1975: 71–85).

Dawson (1970) investigated the attitudes towards education of two small groups of Aborigines in New South Wales, one group living in Green Valley, a working class outer Sydney suburb, the other at Wallaga Lake, an Aboriginal community on the South Coast. The average level of education of the Green Valley sample was marginally higher than of the Wallaga Lake sample, with both groups averaging a little more than 6 years of formal education. While overall both groups tended to regard education favourably, believing that it was 'of considerable value to Aborigines' and a good thing for their children,

members of the Wallaga Lake community were less convinced than those living in the city of the value of the education their children were receiving, and were less certain that Aboriginal and white lifestyles could or should be merged (Dawson, 1970: 85-94, 120-2).

In her review of research done on Aboriginal educational aspirations, Watts (1981: I, 286-8) stresses the variability of the findings, and points out the fact that rapid changes both among Aborigines and in the employment situation make it difficult to judge how valid earlier findings are for the present.

The desire by traditional Aborigines in northern Australia for a type of education provision which is based on Aboriginal values and caters for Aboriginal needs has been documented by the Commission of Enquiry of the United Church of Northern Australia in its report *Free to Decide* (1974), Duke and Sommerlad (1976) and Watts (1976, 1981). The type of educational provision Aborigines of the North would most like to see was summed up by one Aboriginal leader as follows: 'We would like to have a program based on Aboriginal ideas but only to take what is good from the European side' (cited by Duke and Sommerlad, 1976: 111).

Aboriginal Culture, Aboriginal Education

Considering the evidence of all these studies, the only conclusion that one can come to is that, contrary to popular prejudice, both traditional and urban Aborigines attach considerable importance to education but have been alienated from a system which has failed to accept the cultural heritage of Aborigines as the basis of the social life and individual identity of Aboriginal people; accordingly it has remained irrelevant to their particular needs as members of an indigenous minority who hold radically different values and live for the most part in a state of extreme social and economic deprivation. There is evidence that academic achievement in the normal Western sense has presupposed the negation of some of the fundamental values of traditional Aboriginal society. Hence it is not surprising that the few Aborigines who have managed to graduate from university or college in the past have tended to come from mission schools and foster homes, growing up in institutions which inculcate Western values rather than the native culture of the student's family (Commission of Inquiry into Poverty, 1976: 189-90, 198-9). Four studies (Watts, 1970; Sommerlad, 1972; Finch, 1973; Wright and Parker, 1978) have reported a lack of association between healthy self-concept and academic success among Aborigines, though others (for example de Lemos, 1979) did find a moderate association (Watts, 1981: I, 278-81). Clearly, for an Aboriginal who feels the culture conflict severely, academic success could entail great psychological cost.

It is clear that to express the 'problem' of Aboriginal education simply as a question of how participation by Aborigines in existing educational provisions may be increased, in the belief that their depressed life opportunities would be expanded if only they would take advantage of the educational opportunities for advancement so esteemed by Westerners, is to completely misunderstand the nature of the problem. Educational provision as it has existed has been found by Aborigines not just irrelevant to their needs and aspirations, but even harmful to them. The solution, therefore, lies not in encouraging Aborigines to subject themselves still further to a deleterious process but in changing the process until it meets their needs: '*it is the system, not the clients, which should change*' (Duke and Sommerlad, 1976: 18).

In recent years there have been major efforts to improve education for Aborigines (see the exhaustive discussion by Watts, 1981, Chs. 10-19, summarised in Ch. 20). Basic to these efforts has been the belated recognition that the Aborigines themselves should be consulted about the type of educational provision most urgently required, and that, as

far as possible, Aborigines themselves should do the educating. An important example was the formation of the Aboriginal Consultative Group of the Schools Commission in 1974 to advise on Aboriginal educational needs. The Group re-iterated the need for wide-spread consultation between Aborigines and those framing policies affecting them:

We believe that only Aborigines can accurately communicate the needs and aspirations of their people to government and other authorities. . . . We believe that non-Aborigines generally are not attuned to the particular needs of Aboriginal people (Aboriginal Consultative Group, 1975: 9, 17).

Yet, looking back from the distance of only a few years on such attempts to give Aborigines some say in policy decisions affecting them, it is difficult not to be sceptical of what their long term impact will be. There is no small possibility that Aborigines, having been consulted, will in practice be almost as completely ignored as before. Reading through the substantial list of recommendations made by the Aboriginal Consultative Group in its 1975 report to the School Commission, one gets the feeling that they express high expectations which by and large have not materialised, and that unless such a process of consultation with Aborigines does have real impact on the practicalities of social provision for them, it will quickly degenerate into a shallow public relations exercise which will breed more bitterness.

Major practical steps to adapt the education system to the needs of Aborigines have occurred in the development of teaching programs in Aboriginal languages and curricula which make a serious attempt to embody traditional Aboriginal values, as well as the development of special training programs aimed at increasing the number of Aboriginal teachers, teacher aides and other support staff in Aboriginal schools. This entails a recognition of the principle asserted by the Aboriginal Consultative Group (1975: 5) that 'every child has a right to be brought up as a member of his own culture' (see also Watts and Galiacher, 1964: 53).

The need to develop forms of educational provision to meet the specific needs of Aborigines at the post-secondary level has been argued by the Aboriginal Consultative Group (1976) and Duke and Sommerlad (1976), particularly in relation to technical and further education. Technical and further education, it is argued, will enable Aborigines to overcome many of the handicaps resulting from the inability of the school system to cater for them by supplying bridging and pre-trade courses, tutoring, and short-term courses to meet particular needs; it will enable Aboriginal communities to gain the skills needed for social development, cultural maintenance and community self-management. Where appropriate, such educational provision should be taken to Aboriginal communities rather than requiring individual Aborigines to travel to the cities.

Considerations such as these are of course more relevant to Aborigines living in the more or less traditional rural communities than those living in the cities, though urban Aborigines share many of the problems of traditional Aborigines and experience some of them more acutely. Aborigines migrate to the city for many reasons, but the major ones appear to be the search for employment, opportunities for their children, health problems, and a variety of considerations concerning family relations (Beasley, 1970: 152, 188-9; Gale, 1972: 86-94). There is evidence (e.g. Dawson, 1970; Biddle and Smith, 1970; Watts, 1976) that urban Aborigines attach greater importance to educational achievement than those living in semi-traditional communities; there is also some evidence that urban Aborigines are more likely than those living elsewhere to seek individual opportunities and achievement rather than the attainment of communal ideals (Dawson, 1970; Eckermann, 1973). However, there is no reason to regard this as entailing a rejection of traditional values by urban Aborigines or to assume that the conflict between Western and

traditional values is any less acute for them. If anything it would appear that the opposite is true, since most come to the city because of economic necessity or for the sake of their children rather than by personal preference. These motives are similar to those of a great number of migrants from overseas, and it appears that urban Aborigines frequently suffer the same conflicts of self-identity and culture as those experienced by overseas migrants, but which in the Aborigines' case are compounded by the specific problems associated with being members of the indigenous minority whose traditional lifestyle has been destroyed by the dominant society in which, to some extent at least, they are forced by necessity to participate.

In her study of Aborigines in South Australia, Gale (1972: 246-9) found that there was a very strong correlation between age and the proportion of the Aboriginal population that had continued in education beyond the primary school level (see also Brown, Hirschfield and Smith, 1974: 32-4). While experience of secondary education was virtually non-existent among the older age groups, it increased slowly but steadily among the younger age groups. As Gale argues, this must largely be due to improved educational provision for Aborigines, especially in country areas. Until recently it was only in the city that there was opportunity for Aborigines to receive anything more than the most rudimentary education, and it is still in the city that Aboriginal educational achievement is highest—largely as a result of the greater economic security available in the city and the greater motivation resulting from the perception of the wider opportunities that exist for those with educational qualifications (Gale, 1972: 252-3).

In her review of the recent initiatives in Aboriginal education and their results, Watts (1981) comes to a conclusion which contains a large element of pessimism. On the basis of the few studies available, official statistics, and opinions held by those, both Aboriginal and non-Aboriginal, involved with education, she draws the following tentative conclusions:

- (i) There has been a slight increase in the numbers of Aborigines securing good or very good academic achievements and/or successfully completing senior secondary or tertiary studies.
- (ii) There has, over the decade, been a highly significant increase in the numbers of Aborigines attending secondary school; there remains, however, a low participation rate in the senior secondary school.
- (iii) There still exists a highly significant proportion whose educational achievements are too limited to enable them to function successfully in their personal adult lives or to secure for them opportunity to enter the workforce in other than unskilled or semi-skilled jobs; the T.A.F.E. sector has recently developed courses to assist them.
- (iv) For significant numbers, schooling does little to affirm positively their sense of ethnic identity, their pride in their heritage or their sense of personal worth. In the case of large numbers of Aboriginal students, schools remain unresponsive to their needs as Aboriginal Australians.
- (v) Again, for significant numbers, schooling does not serve well the function of assisting the children to discover and develop their talents and potentials.
- (vi) For a majority of families, there is little effective communication between home and school and many parents remain unaware of the ways in which they might assist the educational progress of their children or of the dependence of their children's progress on informed parental support.
- (vii) There is a small but inadequate representation of an Aboriginal voice in educational decision-making (Watts, 1981: IV, 1264-5).

Watts comments wistfully that while it may be that more time is needed for more striking outcomes to become visible, 'one might reasonably have expected some significant changes to have occurred by now'. The reason that gains have been so minimal is the same reason that education has led to such slender improvements in social equity, understanding and harmony in the mainstream of society: changes and improvements in

formal education are impotent unless supported by changing attitudes and values in the wider community.

In her final summing-up, Watts finds herself forced to state the following as one of the conditions which must be met if formal education is to 'discharge its responsibilities to the Aboriginal people' in the closing years of this century:

... the wider society must ensure that the Aboriginal people are enabled to function as vital, secure, healthy and autonomous individuals and communities (Watts, 1981: IV, 1306).

It is worth spelling out what is implicit in this remark. Far from expressing confidence in the ability of education to transform society and bring about a more just relationship between Aborigines and the wider community, it is a troubled admission that, in the end, education can only do what society allows it to do. A gloomy conclusion, but probably realistic. Even a system of educational provision which respects Aboriginal values and goes some way to meeting Aboriginal needs will not resolve all the problems and hardships experienced by members of a minority culture living on the fringe of the society which has emasculated their traditions, any more than education will do away with all the inequalities and injustices suffered by some members of that dominant society. Education alone cannot resolve conflicts between values or clashes between lifestyles but it can make it easier for individuals to cope with such conflicts. Education can engender self-confidence and strong self-identity if based on communal values; it can develop the skills and attainments necessary for personal and community autonomy and produce a level of understanding which enables individuals to feel they have control over their lives, that they are masters of their situation rather than its victims.

9 Social Class

The socio-economic background of students has been studied more fully than any other factor affecting participation in higher education. Using the holy trinity of sociological indicators of social position—income, occupation and education—the conclusions of the numerous studies that have been carried out are clear and unambiguous: university students and, to a lesser extent, college of advanced education students are of above average socio-economic status, with a much higher proportion of students coming from professional and managerial families than would be expected on the basis of the proportion of those occupations in the workforce, and a much lower proportion of students coming from families in which the breadwinner is a skilled or unskilled manual worker. The privileges, prestige and affluence to which higher education usually gives access tend accordingly to remain in the social strata already possessing them.

Socio-economic status is a measure of power, prestige and affluence. Class theorists use the concept to identify the position of individuals within the social structure which is viewed either as a hierarchy or, by Marxist theorists, as a battleground of conflicting sectional interests: workers and capitalists, employers and employees, upper class and working class, or exploiters and exploited. Most of the studies we review see the social structure as a hierarchy in which mobility, mainly upwards, is possible. Those near the bottom of the hierarchy are characterised by little power, negligible status, poor education and low income. A classification of occupations according to the two variables of level of skill and manual/non-manual character is widely used to conceptualise this hierarchy. The order of the broad occupational categories from bottom to top is:

1. unskilled manual
2. skilled manual
3. low grade clerical
4. higher clerical
5. small-scale employers and managers, newer professions
6. large-scale employers and managers, older professions.

This general ordering of occupations is found to correlate reasonably well with level of income, level of education and social prestige as well as with various measures of attitudes and life-style.

It should be pointed out that the results of many of the studies discussed below are presented in terms of the occupational classification system used in the national census. Since that classification system is based on distinctions between industries rather than on relative socio-economic status, it cannot by itself be regarded as an accurate measure of socio-economic status. It does roughly correspond with levels of the status classification system, however, and when used in conjunction with a measure of income and of educational level it is adequate to the purpose. It has the advantage of being a classification system which is widely used in Australia and so makes comparisons possible with a large body of data.

Studies of University Students

As was pointed out in chapter 5, early investigations of the social background of Australian university students used type of secondary school attended as a measure of the socio-economic background of students. While it was recognised that this was only a rough measure at best, it was nevertheless frequently the only one on which information was readily available from the records of the universities themselves. The association of type of school—public, Catholic, non-Catholic private—with social background is well established, as was shown in the appendix to chapter 5. Private school students tend to come from well-off families, many of them with a professional background, while public schools and to a lesser extent Catholic schools have many more working class students and students who come from low income families.

La Nauze, whose pioneering work in the 1930s in South Australia was discussed in chapter 5, expressed the matter as follows:

There are, no doubt, some boys at State schools whose parents could afford to send them to Private schools, and some boys at Private schools whose parents maintain them there only by severe sacrifices. Nevertheless the *generalization* can be made that parents of boys at Private schools comprise the higher income-groups of the community (La Nauze, 1943: 33).

This view is supported by evidence found in later studies. Income is only one measure of socio-economic status, however, and one about which it is frequently difficult to obtain reliable information. This is one reason why the other measures—occupation and level of education—feature more prominently in the studies that have been carried out.

Using type of secondary school attended as an indicator of the socio-economic status of university students, therefore, early investigators such as La Nauze (1940), Henderson (1942, 1946), Sanders (1948) and Hohne (1951, 1955) found that lower socio-economic groups were considerably under-represented among university students before and during World War II, as tables reproduced in chapter 5 show.

Dawson's (1965) study of female graduates of the University of Sydney showed them to be predominantly of high socio-economic background. Details of the findings of this study were given in chapter 4.

Serle's (1971) survey of history honours graduates from the University of Melbourne between 1937 and 1966 gives one of the few other snippets of information available concerning the socio-economic background of university students in the pre-war years. Table 9.1, which presents his results concerning the occupation of students' fathers, shows that although between 1937 and 1966 the proportion of students with professional

Table 9.1
Occupation of history honours students' fathers,
University of Melbourne 1937–66 (percentages)

	1937–45 N = 47	1944–51 N = 77	1952–9 N = 78	1960–6 N = 93
Professions	43	36	35	32
Company directors/managers	13	14	18	23
Small business	11	10	8	8
Clerical workers	4	14	22	18
Farmers and graziers	10	3	1	1
Artisans, labourers	19	22	17	18
Total	100	100	100	100

Source: Serle, personal communication.

backgrounds decreased, the proportion of students whose fathers were manual workers remained consistently low; only the proportion of students whose fathers were non-professional white-collar workers increased.

One of the first post-war studies was Rowe's (1960) longitudinal study of the new students who enrolled at the University of Adelaide in 1952 and graduated in 1956. Rowe did not attempt to establish whether or not any particular socio-economic groups were under- or over-represented in the student body; rather, he attempted to measure what he called the 'E factor' of students, 'the general cultural standard of the student', with 'culture' to be understood as level of literacy, human understanding and social awareness (Rowe, 1960: 102). As might be expected, Rowe found that a high E factor tended to correlate with higher ranking occupations on the part of the student's father, and also that academic performance increased 'steadily' with E factor (Rowe, 1960: 105, 108). Yet at the same time he found 'no relationship between father's occupation and academic performance' (Rowe, 1960: 101). These results appear to be contradictory and cast doubt on the reliability of Rowe's measures. Nevertheless there can be no doubt that the focus on the family environment in which the student grows up and which determines educational aspirations and achievements at the tertiary level is of the utmost importance. This is a point to which we shall return later.

The first major study to use father's occupation, education and income as measures of the socio-economic background of higher education students was that of a large sample of new entrants to the University of Melbourne in 1955 and 1956. Findings were that there was 'an extraordinary amount of selection of university students by parents' occupation', and 'in all occupational groups' into which students' parents fall 'there is a high proportion of university related people' (University of Melbourne, 1957: 38). In his later article based on this survey, Hammond (1962) emphasised the finding that 50 per cent of the students had close relatives who had already attended university, commenting that it appeared that 'for some families attendance at the university is becoming a family characteristic' (Hammond, 1962: 108).

A study carried out by Gilchrist and Hammond (1971) in 1967 approached this issue from another perspective. In 1957 a study had been made of a sample of 421 Melbourne primary school boys which identified a number of social and psychological factors influencing educational achievement (Hammond and Cox, 1967). A follow-up study of 130 boys was carried out in 1967, in which comparisons were made between those boys of the original sample who had entered university, or equivalent courses at the Royal Melbourne Institute of Technology, and a group from the original sample whom tests had shown to be their intellectual equals but who had not undertaken higher level study (Gilchrist and Hammond, 1971). Here too, high occupational status of father, high level of education of father, and attendance at private school were found to be significantly correlated with entrance to higher education. But perhaps most important was the 'level of aspiration of the family for their son':

Some families took university entrance and a professional career for granted; other families regarded the boy as performing well above expectations if he reached Intermediate or Leaving level. This 'level of aspiration of the family for the son' is significantly higher in families of the high level tertiary entrants ($p < .01$) and correlates positively with the three socio-economic status indicators above (Gilchrist and Hammond, 1971: 322).

The other major study of the socio-economic background of university students in the 1950s was that carried out at the University of Queensland by Schonell, Roe and Middleton (1962). Once again a clear relation was found between entry to university and socio-economic background:

The fact that 24 per cent of students' fathers had a university education is significant if we remember that this figure is several times higher than that for all Queensland males and even more significant if we remember that the fathers of the 1955 students were educated more than 20 years ago when the proportion of the population attending a university was considerably smaller than it is today (Schonell *et al.*, 1962: 31).

It was found that 'the 8 per cent of all Queensland working males who are in professional, semi-professional or administrative occupations are the fathers of 42 per cent of students, whereas the 35.3 per cent who are semi-skilled or unskilled workers (operatives and labourers) are the fathers of only 3.5 per cent of students' (Schonell *et al.*, 1962: 32). When considering these results it should be noted that the census occupation classification used by Schonell, Roe and Meddleton was revised in 1961, and that comparison with the results of other studies (except the sequence of studies by Bassett on the background of teacher trainees discussed below) is impossible.

Sociologically, therefore, university students are predominantly drawn from a narrow social range, and although they were also select in terms of scholastic aptitude and attainments, Schonell, Roe and Meddleton (1962: 316) emphasised that 'other evidence shows that *many gifted students who completed their secondary school courses and took the matriculation examination did not go on to university*'. They cited a study by the Research and Guidance Branch of the Queensland Department of Education which found that gifted school pupils come from all sections of the community, but that 'the children of professional fathers had most chance of reaching university; the gifted children (and particularly the daughters) of unskilled and semi-skilled workers had little chance of doing so' (Queensland Department of Education, 1957).

The 1958 study of undergraduates at the University of Sydney showed that their occupational background was similar to those at the University of Queensland. Those of professional, semi-professional or managerial background made up 45.2 per cent of the student sample but only 16.5 per cent of the Sydney community sample, and whereas only 18 per cent of the students had fathers who were manual workers, 46.6 per cent of the community fell in that category (Philp, Debus, Veidemanis and Connell, 1964).

Since the late 1950s research into the socio-economic background of students has been carried out more extensively at the University of Melbourne than anywhere else in Australia. As well as the 1957 study and the work by Hammond (1962) and Anderson (1960), another study of first year students was done in 1959 by Theobald (1961), and in 1962 Anderson initiated the first of the surveys of the Melbourne University first year intakes which have, with only three omissions, been carried out annually since.

Theobald's study was primarily concerned with student performance, but nevertheless confirmed the fact that a disproportionately large section of the student population had a socio-economic background which was high as measured by father's occupation, income and educational level (Theobald, 1961: 20). Information concerning the social background of students at Melbourne University was also gathered in a survey of student costs and incomes by the University's Student Representative Council. The results, reported by Beighton and O'Connell (1974), correspond to those being produced by the annual student intake surveys. The 'typical' student at Melbourne University was found to have 'a professionally employed father with at least some tertiary education and a mother who is a housewife, educated to the upper levels of secondary school' (Beighton and O'Connell, 1974: 11).

The results of annual Melbourne University intake surveys relating to the occupation of students' fathers are shown in table 9.2; results relating to parents' education are shown in table 9.3.

Table 9.2
Percentage distribution of entrants to Melbourne University, 1962-80,
according to father's occupation

<i>Father's occupation</i>							
	<i>N =</i>	<i>Professional</i>	<i>Administrative</i>	<i>Clerical, sales</i>	<i>Farmer and related</i>	<i>Mines, transport and communication, sport, services, armed forces</i>	<i>Craftsmen, production and process workers, labourers</i>
1962	2298	27	31	16	6	5	15
1963	2690	28	28	18	7	5	14
1964	2700	25	28	18	8	6	15
1965	2487	23	32	18	7	5	15
1966	2366	25	27	16	7	7	18
1967	2593	29	28	14	8	6	15
1968	2400	26	27	15	9	7	17
1969	2698	25	30	13	8	7	17
1970	2582	27	30	10	8	6	17
1972	2746	26	30	12	9	6	18
1974	2396	25	30	12	9	6	19
1975	2472	27	28	12	6	6	21
1976	2683	29	29	12	7	6	17
1978	2276	31	28	11	7	6	17
1980	2353	30	22	12	7	6	17
Victorian male workforce age 45-54							
1961		6.1	12.6	12.1	12.7	12.6	44.0
1971		8.5	13.6	13.2	9.8	12.5	42.6

Source: University of Melbourne annual student intake surveys and ABS Census statistics. Proportions for the Victorian male workforce have been calculated to exclude those whose occupations were unknown or inadequately described as well as those not in the workforce. It has been assumed that workers in this category (0.7 per cent in 1961 and 4.8 per cent in 1971) were randomly distributed across all occupational categories. The university figures exclude students for whom no information was available and those whose father was not in the workforce.

According to the 1961 Census 6.1 per cent of the male Victorian workforce in the 45-54 age group held 'professional and related' positions, while another 12.6 per cent had administrative or managerial jobs. Yet among fathers of students who started at the University of Melbourne in 1962 these 'upper' occupations were three times as numerous. In the same year the 44 per cent of the male workforce who were of the age corresponding to students' fathers and had manual jobs produced only 15 per cent of the entrants. The extent of the over-representation of the more prestigious occupational groups in the student body is therefore very striking, particularly when it is remembered that the census occupational classification used is by industrial grouping and yields only a rough hierarchy of status.

Even more striking is the lack of change in subsequent years in the proportions of students drawn from the various occupational categories. Except for a marginal increase in the proportion of students with manual background and a corresponding decrease in that from the clerical/sales category, participation rates for the different occupational groups appear to be completely stable.

Hammond (1962: 108) commented on the extremely high proportion of University of Melbourne students coming from families with previous experience of university. Table 9.3, which shows the level of education of parents of entrants to Melbourne University, bears this out. Here again, the proportion of parents with university qualifications is very stable over the years. The jump in the proportion with 'other post-secondary qualifications' in 1970 appears to be due to changes in classification rather than in reality.

Table 9.3
Percentage distribution of entrants to Melbourne University,
1962-80 according to parents' education

	<i>Parents' education</i>							
	<i>N =</i>		<i>University qualification*</i>		<i>Other post-sec. qualification^b</i>		<i>No formal qualification</i>	
	<i>Mother</i>	<i>Father</i>	<i>Mother</i>	<i>Father</i>	<i>Mother</i>	<i>Father</i>	<i>Mother</i>	<i>Father</i>
1962	2498	2525	10	25	8	13	82	62
1963	2629	2629	9	23	8	15	85	62
1964	2684	2677	10	25	7	13	83	62
1965	2335	2310	11	26	6	9	83	65
1966	2358	2325	11	25	7	9	82	86
1967	2469	2453	9	22	6	10	85	68
1968	2353	2363	10	23	7	11	83	66
1970	2460	2504	12	23	15	26	73	51
1971								
1972	2680	2629	7	20	21	22	72	58
1974	2438	2469	11	25	22	26	67	49
1975	2498	2460	10	25	26	25	64	50
1976	2683	2709	10	21	25	24	65	45
1978	2371	2369	8	23	25	25	67	52
1980	2499	2509	12	27	31	29	57	44

* Includes those who have completed only part of a university course, except in 1972 and 1978, when they were included in the 'other post-secondary qualification' figure.

^b Includes those who have matriculated since leaving school.

Source: University of Melbourne annual student intake statistics. Students for whom no information was available have been excluded.

Comparing the educational level of students' fathers with that of the Victorian male workforce aged 15 years and over in 1971 (the only census data on education available) we find that while 20 per cent of the fathers of that year's entrants had a university qualification (the lowest proportion recorded over 14 years) only 2.9 per cent of the male population had one; and while 72.1 per cent of the male workforce had no formal qualification, for fathers of Melbourne University entrants in 1971 the proportion was 58 per cent. For the national male workforce the figures were virtually identical. As the educational level of the population generally continues to rise, the participation by students whose parents have attended university will become slightly less disproportionate, but the restricted number of university places necessarily limits the extent to which this will be possible. It is interesting to note that between 1962 and 1978 there was no upward trend in the proportion of fathers with university education despite the fact that the 1962 fathers would have left school in the mid-1930s and the 1978 fathers in the late 1940s and early 1950s, by which time the number of university places had trebled.

In 1970 Monash University began an annual survey of new first year entrants very similar to that conducted by Melbourne University. Results from the Monash surveys have been reported by Ryan (1972), Smurthwaite (1974), and Slamowicz, Smurthwaite and West (1976), and Anderson, Boven, Fensham and Powell (1978). They show that in terms of father's occupation Monash and Melbourne University entrants are virtually identical. As far as level of parents' education is concerned, parents of Melbourne University students are marginally more likely to have attended university, while those whose children enter Monash are marginally more likely to have other post-secondary qualifications.

Table 9.4 shows the occupational distribution of the fathers of students entering the University of New England between 1961 and 1964 as established by Katz, Katz and Olphert (1965). In this time there were no discernible changes. Although this study uses a different occupational classification system, some broad comparisons may be made with the Melbourne and Monash results.

In chapter 6 we pointed out that the University of New England was atypical in that most of its students came from the country rather than from a metropolitan centre. It is not surprising therefore that almost twice as many New England students had fathers who were farmers or graziers as had fathers in the professions, that more than half came from

Table 9.4
Father's occupation for students entering University of New England
over the years 1961-4

<i>Father's occupation</i>	<i>Number of students</i>	<i>Percentage</i>
Professional	140	15
Teacher	72	8
Clerical	168	18
Sales	57	6
Skilled	103	11
Unskilled	70	8
Farmer or grazier	279	30
Miscellaneous	11	1
Not answered	23	3
Total	923	100

Source: Based on Katz *et al.*, 1965: 22.

extended families with no previous experience of university, and less than a quarter from nuclear families with previous university experience (Katz, Katz and Olphert, 1965: 20-5). New England's rural setting and the fact that some two-fifths of its students held teacher training scholarships certainly has some bearing on these results.

The wider applicability of the findings of restricted studies like those carried out within individual institutions such as the Universities of Adelaide, Queensland, Sydney and Melbourne has been confirmed by nationwide studies such as the ACER school leaver surveys of 1959-60 (Radford, 1962) and 1970-71 (Radford and Wilkes, 1975) and the 1974 study of the income and expenditure of tertiary students by the Australian Department of Education and the Australian Union of Students (Australian Department of Education, 1970).

The results of the 1959-60 school leaver study show the disparity between the family backgrounds of students destined for university and others far more sharply than the comparisons related above of university statistics with population figures. For the school leavers whose fathers were unskilled or semi-skilled workers the chance of going to university the following year was 1.5 in 100 for boys, 0.7 in 100 for girls. For those whose fathers were university educated professionals the chance of going to university next year was 35.9 in 100 for boys, 23.7 in 100 for girls (Radford, 1962: 55). In other words, the chance of going to university was 24 times (for boys) and 34 times (for girls) greater for children of university educated professionals than for children of unskilled or semi-skilled workers.

Twelve years later when the study was repeated the gap had been narrowed a little. However, as Radford and Wilkes (1975: 73) point out, in view of the extremely small proportion of university students coming from the homes of unskilled and skilled workers in 1959-60 'it would be misleading to emphasize rates of increase'. The gap remained substantial: the probability of the children of professionals going to university compared with that of children of unskilled or semi-skilled workers was 9 times greater for boys (28.6 and 3.2 per cent) and for girls (20.6 and 2.4 per cent).

A more recent study of school leaving patterns and entry to post-secondary education in Australia is that by Williams, Clancy, Batten and Girling-Butcher (1980). This survey of a representative national sample of almost 5000 17-year olds in 1978 produced findings concerning socio-economic background which were little different from the others reported in this chapter. The investigators found that when other major variables were controlled, father's occupation and, to a lesser extent, father's and mother's education, still correlated with both school performance and a decision to stay on at school to matriculation level (Williams *et al.*, 1980: 58, 68).

The 1974 national survey by the Australian Department of Education and the Australian Union of Students used a sample of 3 per cent (just under 4500 students) of the Australian higher education student population. It showed that especially in the case of university students, but also college of advanced education students, those with fathers in the professions were strongly over-represented and those whose fathers were manual workers were under-represented (Australian Department of Education, 1976: 8). Results of this survey will be discussed in more detail in connection with the work of Beighton and Gallagher (1976).

Inter-faculty Differences

Information concerning differences in socio-economic background between students in various faculties at university tends either to be limited to differences between a small number of faculties or to differences between the faculties of only one institution.

Table 9.5
Father's occupation of students in professional faculties (percentages)

<i>Father's Occupation</i>	<i>Engineering</i> N = 652	<i>Law</i> N = 645	<i>Medicine</i> N = 572	<i>Teaching</i> N = 1277	<i>All students</i> N = 3146
Employers and managers					
Large-scale	9	18	7	6	9
Small-scale	25	16	16	14	17
Professionals					
Self-employed	6	13	13	2	7
Employees	15	14	17	14	15
Clerical and sales	24	20	24	25	24
Manual workers					
Skilled	10	6	8	8	8
Semi-skilled	6	5	8	19	12
Farmers	3	5	4	10	6
NA	2	3	3	2	2

Source: Anderson and Western, 1970: 10.

Perhaps the most extensive study to yield information on this topic is the longitudinal study of professional socialisation carried out by Anderson and Western. Anderson and Western (1970) describe the socio-economic background of the 1965 entrants to all Australian engineering and law faculties and the 1967 entrants to medicine and teacher education. Overall, fathers of the students ranked very high in terms of educational level and occupational status, with 50 per cent of the fathers compared with 17 per cent of the Australian male population being classed as 'professionals' or 'managers', and 19 per cent compared with 2 per cent having a university education (Anderson and Western, 1970: 16-17). Despite the fact that as a whole the students had higher than average socio-economic background, differences between the faculties were still quite marked, as tables 9.5 and 9.6 show. The largest differences were between teaching and the other three professions. Teacher trainees had the smallest proportion of fathers who held professional or managerial positions and the largest proportion who were manual workers. A high proportion of engineering students had fathers who were small-scale

Table 9.6
Educational level of fathers and mothers of students
in professional faculties (percentages)

	<i>Engineering</i> 1965 N = 652		<i>Law</i> 1965 N = 645		<i>Medicine</i> 1967 N = 572		<i>Teaching</i> 1967 N = 1277		<i>All students</i> N = 3146	
	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>
No secondary	15	21	15	21	17	20	19	20	17	20
Some secondary only	32	43	28	38	28	39	45	56	35	47
Completed secondary	14	19	11	18	11	14	10	10	11	14
Post-secondary diploma or certificate	16	8	16	10	12	12	14	39	15	10
Attended university	20	5	27	11	28	11	10	4	19	7
NA	3	4	3	2	4	4	2	1	3	2

Source: Anderson and Western, 1970: 13.

businessmen, while medicine and law students tended more than students in the other faculties to have fathers in the professions. Differences between the faculties in terms of parents' education followed a similar pattern, with parents of trainee teachers having the least education, then engineering students, and those of medicine and law students having most.

Studies of students' fathers' incomes also produced a status ranking of faculties. Law and medicine averaged the highest incomes and teaching and engineering the lowest (Anderson and Western, 1970: 11-12). Father's occupation, and father's education generally correlate with one another between 0.5 and 0.6; there are faculty variations, however, and for 'medicine, law and engineering in the 1970 study the highest correlations were between father's income and father's occupation; for teaching it was between father's education and occupation'.

Other studies confirm these results, especially the comparatively low socio-economic background of trainee teachers. Teaching has always been an important avenue of upward social mobility for working class students; all the Australian studies of teacher education students clearly show this. The most extensive work on the socio-economic status of teachers and trainee teachers has been done by G.W. Bassett. In his first study (Bassett, 1958) he examined the social background of trainee students in the period 1929-57, and several years later made a similar survey of all male teachers who at the time had had 20 or more years service with the New South Wales Department of Education (some 2300 teachers). On the whole the results were very similar to those for the students. Table 9.7 shows the proportions coming from the various occupational categories as well as the occupational distribution of the New South Wales workforce according to the 1952 census.

Approximately half of both groups had fathers who were small businessmen, farmers, tradesmen, and so on, while the fathers of another one-fifth fell in the 'semi-skilled' category. The largest difference between the two groups was in category 2: while only 2.2 per cent of students had fathers in this 'higher administrative' category, 7.6 per cent of teachers did so. The lower proportion of students than teachers coming from categories 1 and 2 could be used as an argument that 'recruitment from the best educated classes has fallen' but, as Bassett points out, since the data for teachers were collected on a state-wide basis, while those for students come only from one country centre, any such argument must be treated with suspicion. He concluded that 'the pattern of recruitment to the public school system in New South Wales appears to have been stable for the past thirty or forty years' (Bassett, 1961: 14).

In his student sample Bassett found that trainee teachers attending university tended to have a background of higher occupational status than did those at teachers college: 29.3 per cent of those attending university came from categories 1, 2 and 3, while 15.3 per cent of those attending teachers college did so; for categories 4, 5 and 6 the proportions were 60.4 and 71.1 per cent respectively (Bassett, 1958: 86-7). This difference corresponds with the findings of later studies, such as that by Beighton and Gallagher (1976) (see below).

Data for Armidale teacher training students in 1970 were reported by Bassett in 1971. These showed a big increase in the proportion of students drawn from the top three categories, largely at the expense of categories 4 and 5; the proportion with fathers deceased, on a pension, retired or unemployed also decreased.

Another study of the social background of student teachers in New South Wales was made by Pike (1966). Although lack of available data made accurate measurement impossible, Pike concluded that, in relation to the probable occupational structure of the

Table 9.7

Occupational background of trainee teachers enrolled at Armidale Teachers College and University of New England 1929-59, and of NSW male teachers with 20 years service in 1961 (percentages)

<i>Occupational category</i>	<i>Students</i>	<i>Teachers</i>	<i>NSW male workforce 1952</i>
Professional and high administrative e.g. doctors, judges etc. 'substantial' graziers	0.3	0.6	0.82
Headmasters, school inspectors, clergymen, owners of 'substantial' retail businesses	2.2	7.6	3.34
Station managers, teachers, higher clerical positions	14.8	13.1	5.42
Small shop owners, small farmers, tradesmen, commercial travellers, locomotive drivers, hairdressers, station foremen	47.2	49.1	49.47
Semi-skilled tradesmen, shop assistants, mine workers, soldiers (non-commissioned), riggers, clerks, some railway occupations, postal workers, shearers	17.4	20.2	28.34
Unskilled manual—cleaners, caretakers, labourers	4.9	9.2	12.61
Widows, pensioners, retired people, unemployed	13.2	n.a.	n.a.

Note: The occupation classification used by Bassett was that used by the Commonwealth Bureau of Census and Statistics until it was revised in 1961. Probably the most important difference between the old and the revised classification (at least in relation to Bassett's studies) is that in the revised version teachers are included in the 'professional' category, while in the original version they were not.

Source: Based on Bassett, 1958: 80-1, 1961: 14.

New South Wales workforce in the pre-war years, the higher occupational groups were no doubt over-represented and manual workers under-represented among student teachers. In 1961 only 16.5 per cent of the New South Wales male workforce were in the professional/managerial category, and before the war the proportion would certainly have been smaller. Yet Pike's figures show that the proportion of students with that type of background entering Sydney Teachers College in the 1920s and 1930, was fairly stable, in the neighbourhood of 22 to 24 per cent. In 1961, 61 per cent of the New South Wales workforce were manual workers, but the proportion of pre-war students with that type of background was only slightly more than half that. The declining proportion of students with farming backgrounds entering Sydney Teachers College, especially the drop from 16.8 per cent in 1927 to 9.8 per cent in 1930-31, is partly accounted for by the fact that until 1928 Sydney Teachers College was the only one in the state; when Armidale College opened in that year country students tended to go there.

Pike's (1966) survey of final year students in New South Wales teachers colleges in 1963 showed a significant increase in the proportion of trainee teachers with professional or managerial backgrounds: 28.4 per cent for males and 36.1 per cent for females, compared with 22.1 per cent for all entrants to Sydney Teachers College in 1936. Over the same period the proportion with manual backgrounds remained relatively stable. The increased participation by students with professional or managerial background may to some extent (as Pike suggests) reflect changes in the occupational structure of the New South Wales

Table 9.8
Occupational background of full-time first year students at University of New South Wales, 1969,
according to faculty (percentages)

	<i>Applied science</i> N = 205	<i>Architecture</i> N = 136	<i>Arts</i> N = 550	<i>Biological science*</i> N = 32	<i>Commerce</i> N = 233	<i>Engineering</i> N = 378	<i>Medicine</i> N = 213	<i>Science</i> N = 304	<i>Vocational studies*</i> N = 80	<i>Total</i> N = 2131
Professional	20	24	19	12	11	18	31	18	14	19
Managerial	23	29	25	25	30	21	19	21	21	24
Farmer, grazier	7	2	5	—	3	5	2	4	6	4
Own small business	15	13	13	19	18	12	19	11	12	14
Skilled tradesman	10	13	14	22	15	15	11	15	13	14
Sales, clerical	7	6	8	3	8	11	5	11	15	9
Service, transport	5	4	7	6	4	4	6	6	5	6
Unskilled	6	6	5	12	5	8	2	8	5	6
No information	7	1	4	—	6	4	5	6	6	5

* Includes 8 part-time.

* Includes 3 part-time.

Source: Katz, Barrett and Firth (no date), *The Freshers of 1969—Characteristics and Performance*, p.6.

Table 9.9
Father's education for full-time first year students at University of New South Wales, 1969,
according to faculty (percentages)

	<i>Applied science</i> N = 205	<i>Architecture</i> N = 136	<i>Arts</i> N = 550	<i>Biological science</i> N = 32	<i>Commerce</i> N = 233	<i>Engineering</i> N = 378	<i>Medicine</i> N = 213	<i>Science</i> N = 304	<i>Vocational studies</i> N = 80	<i>Total</i> N = 2131
Primary only	8	11	11	22	12	13	7	16	10	12
Some secondary	39	32	39	44	39	39	35	38	36	38
Completed secondary	12	14	14	12	13	13	10	11	14	13
Some tertiary (non-uni)	8	5	7	6	8	8	7	7	11	7
Some tertiary (uni)	4	2	4	3	3	3	3	2	2	3
Completed tertiary (non-uni)	11	14	9	12	12	9	9	11	10	10
Completed tertiary (uni)	13	20	14	—	9	11	26	13	15	14
No information	4	1	2	—	4	2	2	3	1	3

Source: Katz, Barrett and Firth (no date), *The Freshers of 1969—Characteristics and Performance*, p.7.

workforce. Pike's results seem to agree with those of Bassett (1971). His study also confirms the finding (see Radford, 1962; Fensham and Taft, 1973; Anderson, Batt, Beswick, Harman and Selby Smith, 1975; Beighton and Gallagher, 1976) that students from 'lower' occupational groups who continue to the final year of secondary school tend disproportionately to enter teachers college rather than university (Pike, 1966: 102-3).

While the socio-economic background of education students tends to be lower than that of students in other university faculties, it appears to be a little higher than that of teachers college students (see Beighton and Gallagher, 1976, discussed in the following section). When McKeivitt and Douglas (1973) examined the occupational background of bonded teacher education students entering the University of Western Australia in 1970 and 1971 their results were unfortunately made unclear by big inter-year variations, but on average the proportion of students with professional or managerial backgrounds seems to have been higher than that reported by Pike for teachers college students and is more in line with Anderson and Western's findings on students in education faculties at universities. In 1970 41.2 per cent of students came from the professional and managerial categories while 28.2 per cent were the children of manual workers. In 1971 the proportions were 34.1 per cent and 35.6 per cent respectively. McKeivitt and Douglas also found that the occupational background of female students tended to be higher than that of males.

Details of inter-faculty differences in the socio-economic background of students at one university (University of New South Wales) are given by Katz, Barrett and Firth (no date). Tables 9.8 and 9.9 show their results relating to father's occupation and father's education for full-time first year students in 1969. The results contain few surprises. Compared with the workforce the high ranking occupations are over-represented in all faculties, with medicine (31 per cent) and architecture (24 per cent) having the highest proportion of students with professional backgrounds, and commerce (11 per cent) and vocational studies (14 per cent) having the lowest; students with fathers in managerial positions tended most to study commerce (30 per cent) and architecture (29 per cent) and least to study medicine (19 per cent). The proportion of children of manual workers was lowest in medicine (13 per cent) and highest in biological science (34 per cent). The results for father's education accord fairly well with those for occupation, with fathers of architecture and medical students more likely to be university educated and those of engineering and science students least so. Compared with other universities the social profile of students at the University of New South Wales tends to be more weighted overall towards the lower end of the spectrum.

A comparison of these results with those for first year students at the University of Melbourne in 1969, given by Lee Dow, Jones and Osman (1972) nevertheless reveals a parallel in the distribution of students between faculties according to father's occupation. The Melbourne study examined only selected faculties, but of these medicine had the highest proportion of students with professional backgrounds (43.3 per cent) while commerce had the lowest (13.2 per cent); students with manual backgrounds, on the other hand, were most prevalent in engineering (22.5 per cent) and science (19.1 per cent) and least so in medicine (9.1 per cent). Table 9.10 shows the results in detail.

Universities and Colleges of Advanced Education

All the comparisons of the socio-economic backgrounds of university and college students carried out to date have shown that university students tend to have a higher socio-economic background than their college counterparts, though often the difference is much smaller than might be expected: college students are much more like university

Table 9.10
Occupations of fathers of entrants to selected faculties of Melbourne University, 1969 (percentages)

	<i>All university entrants N = 2926</i>	<i>Arts N = 659</i>	<i>Science N = 538</i>	<i>Commerce N = 371</i>	<i>Medicine N = 208</i>	<i>Engineering N = 262</i>
Professional, technical and related workers	22.9	28.1	19.5	13.2	43.3	17.9
Administrative, executive and managerial	27.3	26.3	25.5	31.5	26.9	28.2
Clerical workers	5.4	5.2	5.8	8.1	3.4	3.4
Sales workers	6.7	5.0	7.8	7.8	6.3	6.1
Farmers	7.7	6.7	8.2	8.1	3.8	9.5
Miners	0.1	0.2	0.0	0.0	0.0	0.0
Transport and communication workers	3.1	2.6	5.0	3.2	1.0	4.2
Craftsmen, production/process workers and labourers	16.1	14.4	19.1	16.4	9.1	22.5
Service, sport and recreation workers	2.3	2.6	2.6	3.8	0.5	0.8
Armed forces	0.6	0.2	0.9	0.5	1.0	0.4
Not in workforce, no information, occupation inadequately described	7.8	9.0	5.6	7.2	4.8	6.8

Source: Lee Dow, Jones and Osman, 1972: 93.

students in terms of socio-economic background than either are like the population generally.

Early data relating to what are now known as colleges of advanced education must be treated with suspicion because changes in the classification of educational institutions over the years makes consistency in interpretation impossible. Nevertheless, even early studies point to the same conclusions as later studies. Probably the earliest investigation of the socio-economic background of college students was that of first year students at the Royal Melbourne Technical College (now Royal Melbourne Institute of Technology) in 1957. The low response rate makes reliability suspect but the conclusion was that students from higher socio-economic groups were over-represented (*ACER Information Bulletin*, No. 36, May 1958).

The 1959-60 school leaver study showed that students from 'professional' homes entering tertiary education tended strongly to choose university rather than senior technical college (CAE) or teachers college. For males a senior technical college was preferable to teachers college, but the opposite was true for females, for whom teachers college was attractive even when compared with university. Students whose fathers were manual workers were much more likely than those from higher status families to enter senior technical colleges or teachers colleges (Radford, 1962: 52-7).

Horne and Wise (1970) made a survey of first year students of business studies and engineering (slightly less than 3900 students) in Australian CAEs in 1969. They found that approximately one-third classified their father's occupation as being in the professional or administrative fields (Horne and Wise, 1970: 12). While this is less than studies of university students have shown (e.g. Radford, 40 per cent; Anderson and Western, 50 per cent) it is still far more than the proportion of professional and administrative workers in the Australian workforce. Approximately one-tenth of fathers of CAE students had higher education compared with 1.5 per cent of Australian males of comparable age (university students were even more under-represented): 'students entering business studies and engineering in the colleges in 1969 generally did not come from homes with an established tradition of tertiary education' (Horne and Wise, 1970: 14).

The social background of engineering students was discussed by Horne in his article, 'Social Origins of College Engineering Students', published by ACER together with the Anderson and Western (1970) study of university students in the professions in order to make comparisons between the two student groups possible: 'generally, the college engineering students tended to be drawn from lower social strata than did the university engineering students' in terms of father's occupation, and father's and mother's education (Horne, 1970: 34).

Another study carried out in 1969 was Maddox's (1970) investigation of a sample of 803 college applied science students and 255 university science students. His results were similar to those of Horne and Wise: college science students tended to have a lower socio-economic background than their counterparts at the universities of Adelaide, Melbourne and New South Wales, but the professional, administrative and managerial groups are still over-represented, and manual workers under-represented

... the parity ratios calculated from our data for students of manual origins suggest that, if anything, their representation in tertiary education has declined since 1959-60. It is clear that the expansion of higher education does not benefit all social classes equally, unless all social classes have equal access to higher education. The proportions of students of manual origin in the university Science samples are certainly less than the university figures given by the ACER for 1959-60 (Maddox, 1970: 116).

A comparison of large metropolitan CAEs with universities (Royal Melbourne Institute of Technology and Melbourne University, New South Wales Institute of Technology and

University of New South Wales) also showed that differences in socio-economic background between students at the two types of institution were far less significant than the difference between the socio-economic status of either student body and that of the population generally (Maddox, 1970: 137, 140-2).

The results of Dufty's (1972) study of the occupational background of students entering the different types of higher education in Western Australia in 1971 (table 9.11) also show the higher socio-economic groups to be over-represented at all higher institutions in accordance with the hierarchy of institutions found in other studies, although the proportion of students from manual homes entering the University of Western Australia was, if anything, slightly higher than that entering either teachers college or the Western Australian Institute of Technology. Teachers colleges in Western Australia appear to be most attractive to students with a farming background. This may be partially explained by the great distances country students have to travel in that state in order to attend a tertiary institution, and hence need financial support such as that offered in teaching to make higher education a possibility.

Comparable data for South Australia in 1972 were obtained by Blandy and Goldsworthy (1975), reproduced here in table 9.12. The same basic pattern is apparent. Blandy and Goldsworthy also confirmed the view that most of the social sorting process has been completed by the final year of schooling and that family background appears to play only a minor role in determining probability of continuation to higher education. Thus while it is true that 'social class—as measured by family income and father's occupation—affects continuation through the school system', there is nevertheless 'little difference in many of the family background characteristics of students who continued to tertiary education and who did not continue' (Blandy and Goldsworthy, 1975: 102, 118). The 'fathers and mothers of the continuers tended to be *somewhat* more educated than the fathers and mothers of the non-continuers'; the parents of tertiary students tended to be 'slightly wealthier'; and while 'more than one-third of the fathers of continuers held professional or administrative occupations ... only a quarter of the fathers of non-continuers did so' (Blandy and Goldsworthy, 1975: 118, 119). Once a student has reached matriculation level, therefore, socio-economic background seems to have little bearing on whether or not he or she enrolls in higher education; the effect is rather on the type of institution and course.

Data from the surveys of matriculation and college students carried out as part of the Regional Colleges Project (1975) yielded the same conclusions. The follow-up of 5000

Table 9.11
Occupational background of new entrants to tertiary institutions in
Western Australia, 1971 (percentages)

<i>Occupational category</i>	<i>University</i> N = 1709	<i>W A I T</i> N = 2188	<i>Teachers</i> <i>college</i> N = 1147	<i>Male</i> <i>workforce</i> (WA 1966)
Professional	25.8	18.3	15.6	4.9
Administrative, owners	24.9	28.7	22.9	7.3
Clerical	6.7	10.8	7.5	10.9
Sales	3.7	4.5	3.7	5.3
Farm	9.1	10.1	22.5	15.9
Manual	29.8	27.6	27.8	55.7

Source: Dufty, 1972: 242.

Table 9.12
Occupational background of new entrants to tertiary institutions
in South Australia, 1972 (percentages)

<i>Occupational category</i>	<i>Adelaide University</i>	<i>Flinders University</i>	<i>Institute of Technology</i>	<i>Teachers college</i>
Professional, technical and related workers	28	25	21	12
Administrative, executive and managerial workers	12	13	15	18
Clerical workers	7	7	11	6
Sales workers	9	6	6	12
Farmers, fishermen and related workers	7	9	7	13
Transport and communication workers	1	3	7	4
Craftsmen, production workers and labourers	19	21	20	20
Service, sport and recreation workers and armed forces	—	—	2	2
Others including:				
Not in work force	3	—	2	2
No answer	12	16	10	11
Total	98	100	101	100

Source: Blandy and Goldsworthy, 1975.

former matriculation students found that family socio-economic status was not a strong predictor of transition from Grade 12 to higher education, but that it did play a significant role in determining whether a prospective student entered university or college of advanced education (Anderson *et al.*, 1975: I, 206), with students of higher socio-economic background preferring university to CAE. However, attitudes of family (and friends) toward higher education were found to be of considerable importance. After examination results, the students' reports of their parents' wishes for them to continue their formal education was a better predictor of enrolment in a higher institution than any other factor measured in the study (I, 211).

Some 37 per cent of the matriculation student sample had professional, managerial or well-off farming backgrounds. While students from each socio-economic category went to university, college of advanced education, and teachers college, there was clearly a 'greater tendency for the highest status group to "send" their children to university' (I, 273), and a tendency for students from lower status groups to enter a CAE or teachers college. A student's social background was also found to correlate with type of course undertaken:

... within universities, students of law, the health professions and architecture have a higher than average SES; students taking up courses in the humanities, social sciences and engineering at universities have a higher SES than their counterparts at colleges. Those entering teacher education, science, business studies and architecture are more nearly similar in the two systems (Anderson *et al.*, 1975: I, 276).

Compared with university students, it was found that CAE students had relatively little previous family experience of higher education: less than 2 per cent of the mothers and 6 per cent of the fathers were university graduates (for Australian males of comparable age the figure was 2 per cent), although 9 per cent of mothers and 15 per cent of fathers had some experience of higher education (I, 280-1). Though there was no difference in

socio-economic status between male and female matriculation students, the average socio-economic status of female college students was found to be slightly higher than that of males (I, 365).

The studies of Victorian senior secondary school boys in 1967 and their subsequent course of action in relation to higher education carried out by Dunn, Fensham, Osman and Strong (1969), and Fensham and Taft (1973), had produced similar results: 'boys who reach the stage of secondary education where they can contemplate tertiary education tend to come from homes with above average education and occupational standing' (Dunn *et al.*, 1969: 13), and for those who go on to higher education the tendency is stronger still, with universities getting more high socio-economic entrants than the colleges.

Using data from the 1974 national survey of student incomes and expenditures, Beighton and Gallagher (1976) compared the socio-economic backgrounds of university and CAE students. Education students at both universities and colleges were placed in separate categories in order to determine any differences between them and other students in the same institutions. Table 9.13 shows the results. Although groups of students were strongly biased towards the professional and administrative occupational categories, there is a very consistent gradient across the four groups which agrees with the results of most of the studies already mentioned: the occupational backgrounds of university students is highest, then college students, and that of education students in both types of institution the lowest, with not much difference between the teaching students at universities and those at CAEs. However, no differences were found in the occupational background of male and female students. As far as father's income is concerned 'university students in faculties other than education were three times as likely than the other three groups to have fathers earning \$15,000 or more per year' (Beighton and Gallagher, 1976: 167).

The most recent and extensive attempt to obtain an accurate social profile of higher education students in Australia has been that by Anderson, Boven, Fensham and Powell (1978). The conclusions, which are from a national sample, confirm that, in terms of parents' occupation, education and income, higher education students generally are not representative of the population. University students once more are shown to be clearly of 'higher' social origin than their college counterparts. Metropolitan college students

Table 9.13
Fathers' occupations of full-time higher education students, 1974 (percentages)

Occupational category	University N = 1513	CAE N = 521	Uni ed. N = 328	CAE ed. N = 881	Males 45-54 (1971 Census)
Professional/technical	32.6	26.1	24.5	24.3	7.5
Administrative	19.9	18.2	15.4	12.8	12.4
Clerical	4.9	5.2	6.9	5.0	6.8
Sales	5.4	5.4	5.1	5.4	5.6
Farming/mining	7.2	9.3	8.5	13.7	10.9
Communication/transport	3.8	5.2	7.5	7.2	7.6
Tradesmen/labourers	13.7	18.0	21.3	21.0	39.9
Service, sport and recreation	3.0	1.9	3.1	3.1	4.3
Armed forces	0.6	0.8	0.0	0.2	0.6
Not in workforce and/or no information	9.0	10.0	7.7	7.3	4.4

Source: Beighton and Gallagher, 1976: 166.

were inclined to average higher status origins than country college students even when allowance was made for the different family mix in city and country colleges.

Differences of social status were paralleled by school background such that there were larger concentrations of students who had been to private schools in the upper status professional faculties. The differences between faculties were less marked in the colleges than in the universities. An important result (see also chapter 3) was that older entrants were considerably more likely than students coming direct from school to be of lower socio-economic background. Students from non-English speaking migrant families tended more than Australians to have fathers in manual occupations (see also chapter 7).

Almost all of the studies which have been cited have been of students, most frequently of students already in the upper reaches of secondary education or in higher education. These are the survivors in a long process of social selection. The majority leave early and are less frequently the subjects in sample surveys; very rarely indeed do they appear in national studies. An important exception is the Bureau of Statistics 1975 study of educational attainment and father's occupation for a national sample of persons aged 20 to 29. Of the sons of professional fathers 30.5 per cent had studied at university which is six times the rate for the sons of semi- or unskilled workers. On the other hand one third of the sons of the semi- and unskilled left school at age 15 or earlier whereas only an insignificant number of the professional sons left before 16. For females the contrast in university participation rates is even sharper: one quarter of the daughters of professionals attended compared with only 2 per cent of the daughters of the semi- and unskilled. More females left early: half of the daughters of the semi- and unskilled and 14 per cent of the daughters of the professionals had departed from school before they reached 16 (Australian Bureau of Statistics, 1980: 101). As we observed in chapter 4 this trend of under-participation by women has recently been arrested; there is however no indication yet that the gap between the social classes is closing.

Conclusion

University students in Australia are, and apparently always have been, drawn from the higher socio-economic status groups. In terms of father's occupation and income and parents' level of education, they tend strongly to be concentrated at the upper end of the social spectrum. Compared to the children of university educated professionals, those from the families of poorly educated manual workers have little likelihood of going to university; the proportion of university students of such background is only a fraction of the proportion of manual workers in the Australian workforce.

All the evidence shows that social composition of the student body has been very stable over the years. Where studies have found some evidence of change it has not indicated substantial improvement in the rate of participation by lower socio-economic groups. In fact, one study (Dawson, 1965) found that participation in university education by the daughters of low socio-economic status families had decreased since the 1920s. The University of Melbourne annual first year student intake surveys show that at least at one long established university there had been little significant change in the social profile of students in the 1960s and 1970s. On average, the proportion of students with fathers in manual occupations in recent years appears to be up 2 or 3 per cent on figures for the early 1960s, but the same is true of those with professional and administrative backgrounds, with only the lower white collar group showing a decrease.

Changes in the social composition of students have to be considered in relation to any changes occurring in time in the occupational distribution of the Australian workforce. While such changes in the workforce have been discussed (e.g. by Jones, 1970; Broom

and Jones, 1976) there is little data precise enough for our purpose here. However, if we compare the occupational profile of the 45-54 age group of the male Victorian workforce in 1961 with that in 1971 (the 1976 figures are not yet available) we find slight but important changes. The workforce generally has become more qualified, with the proportion of workers in the professional category increasing from 6.1 to 8.5 per cent and the craftsmen, labourers, production workers category decreasing from 44.0 to 42.6 per cent. The other important change is the decrease of the 'farmer and related' category from 12.7 to 9.8 per cent.

If we look at the occupational distribution of the 45-54 age group of males in the Australian workforce as a whole we find similar shifts occurring over the years (though it should be noted that the Victorian workforce as a whole is slightly more 'professionalised' than that of Australia generally). Between 1961 and 1971 the proportion of professional workers rose from 5.8 to 7.8 per cent, while the proportion of craftsmen, labourers and production workers decreased from 42.7 to 41.7 per cent; the size of the 'farmer and related' category also decreased, from 14.1 per cent in 1961 to 10.3 per cent in 1971.

On the face of it it seems that even if the proportions of students from the various occupational categories entering university or college remained constant, the trend towards more professionals and administrators in the workforce in itself would result in a student population which was slightly more representative. But the methodological implications of the changing structure of the workforce are complex. If the present trend continued far enough the end product would be a society inhabited solely by professionals and administrators: this *reductio ad absurdum* points to the drawbacks of trying to measure change with an instrument which is itself changing.

This sort of problem is already obvious in applications of the traditional trichotomy of upper, middle and lower class. In studies of social stratification in Australia the term 'upper class' is simply not used, largely because of the absence of an hereditary aristocracy. The result is that we have a middle class which is not in the middle at all, but rather at the top of the social pyramid, with its true position being obscured by the use of antiquated concepts of analysis. As the occupational categories conventionally labelled 'professional' and 'managerial' continue to expand, and the 'manual' categories contract, we can expect something like the following: in the absence of a utopian change of values, there is likely to be ever increasing differentiation between various types of professional and managerial occupations in terms of prestige, privilege and economic rewards. What we will be left with, in other words, is a society which is middle class from top to bottom! This 'middle' class will, however, be a disparate bunch of people, and in fact contain as much variation in status and privilege as most societies past or present, even if measures of status and privilege take new forms.

Thus if the one occupational scale is to be used as the only instrument for measuring changes in the social composition of students over a substantial period of time, the results are likely to be spurious. But over a shorter period the findings may be fairly meaningful. Thus the conclusion that between 1962 and 1978 students at the University of Melbourne became marginally more representative of the community at large is only justified if we can assume that terms such as 'professional', 'managerial' and 'manual' have the same meaning over the period of comparison.

Not only has the select nature of the university student population been clearly established, but studies have also demonstrated that the small proportion of students of lower socio-economic background who do actually make it to university tend to be concentrated in faculties of the less prestigious professions, such as education,

engineering and commerce, while places in the faculties of the older and more prestigious professions such as medicine, law and architecture tended to go to students of higher socio-economic background.

The relatively low background of teacher education students at university is more than matched by students in teachers colleges. Studies of teachers college students have shown that school teaching remains what it always has been: the major avenue of upward mobility for students from working class families, an avenue which, moreover, is narrowing as recruitment into teaching is declining and the valuable studentships disappear.

The social background of college of advanced education students in faculties other than teacher education tends to fall between that of university students on the one hand and teacher trainees on the other. It appears that while family background has little effect on whether or not a student who has reached the final year of secondary school will continue to higher education, it does have significant bearing on the type of higher institution he or she is likely to enter.

10 Type and Level of Study

Most of the information presented so far has been concerned with the characteristics of full-time undergraduate students at higher institutions. But of course if we are concerned with the extent to which members of different sections of the community are able to participate in higher education, and whether or not higher education can function as a force for social equality and distributive justice by providing increased opportunities for advancement to underprivileged minorities, it is necessary to consider opportunities for types of study other than full-time undergraduate study.

Part-time and external study have long been an important part of Australian post-secondary education, aimed at providing opportunities for those whose circumstances make it impossible for them to enrol full-time or who prefer to remain in employment. To what extent, then, are part-time and external students different from those who study full-time? Do part-time and external courses provide opportunities for students whose background and personal circumstances make full-time study difficult—students from those social groups who are under-represented in full-time study, such as women, country students, those of working class background, Aborigines and southern European migrants?

Similarly, the increasing importance of higher degree study, for entry to the scholarly professions and other employment, means that access to graduate study affects life chances. It has been suggested that when considering whether individuals are disadvantaged or not their particular preferences and aspirations have to be taken into account, that not everyone places the same value on higher education as the academic researcher (education got him where he is) and that non-entry to higher education can mean individuals would rather do other things (yes, it is conceivable). Now it may seem that this sort of consideration does not apply once someone has started higher study, that it is safe to assume that anyone who enrolls at university will want to go as far as they can, doing a higher degree if at all possible. But not all students will want higher degrees. For one thing, not all fields of study offer higher degrees; for another (related to the first), higher degrees are not equally important for career purposes in all fields. The obvious example here is those courses which lead to a professional qualification—medicine, law, architecture, dentistry, engineering. It is primarily in the non-vocational courses such as science and arts that importance attaches to higher degrees: often the aim is research or an academic position. Nevertheless it is likely that as the job market tightens some students will be tempted to acquire a higher degree to distinguish themselves from the mass of applicants. Thus, when considering the implications of differing rates of participation in higher degree study, the career aspirations of students and the relevance of higher awards to the attainment of those aspirations has to be kept in mind just as much as when entry to higher education itself is in question.

Part-time Students

Towards the end of the nineteenth century the universities of the day were finding it difficult to attract a sufficient number of undergraduate students. Among the concessions

made was a provision which enabled students to retain credit for examinations passed even if all examinations prescribed for the year had not been attempted. This enabled people in employment to study part of a university course and led to the part-time system. It proved popular in attracting school teachers to university study.

The importance of part-time study in Australian higher education is shown in numerical terms in tables 10.1 and 10.2. Until recently external part-time students made up less than one-tenth of enrolments in both universities and colleges, while internal part-time students made up one-third or more of college enrolments, and slightly less than one-third of university enrolments. Since 1977 there has been a noticeable swing away from full-time study, especially in the colleges.

Table 10.1
Proportions of university students, studying full-time, part-time
and externally, 1949-81 (percentages)

<i>Year</i>	<i>N =</i>	<i>Full-time</i>	<i>Part-time</i>	<i>External</i>
1949	31,753	63.9	27.4	8.7
1950	30,630	62.7	28.1	9.2
1951	31,671	66.6	25.4	8.0
1952	29,641	63.4	28.6	8.0
1953	28,792	62.8	29.3	7.9
1954	29,374	63.3	28.2	8.5
1955	30,792	62.3	27.9	9.8
1956	34,406	60.0	29.4	10.6
1957	36,815	59.7	29.7	10.6
1958	41,770	60.9	28.2	10.9
1959	47,447	59.5	30.2	10.3
1960	53,633	58.7	31.1	10.2
1961	57,672	53.5	36.5	10.0
1962	63,317	54.8	35.5	9.7
1963	69,074	56.4	34.4	9.2
1964	76,188	58.2	33.2	8.6
1965	83,320	59.9	31.8	8.3
1966	91,291	61.4	30.8	7.8
1967	95,380	61.2	31.2	7.6
1968	101,537	61.8	31.3	6.9
1969	109,662	62.3	31.3	6.4
1970	116,778	63.2	30.0	6.8
1971	123,776	64.2	29.1	6.7
1972	128,668	65.0	28.6	6.4
1973	133,126	64.7	28.9	6.4
1974	142,859	65.1	28.6	6.3
1975	148,338	65.5	28.5	6.0
1976	153,960	65.3	28.5	6.2
1977	158,411	65.0	28.9	6.1
1978	160,035	63.2	29.5	7.3
1979	160,810	61.6	30.4	8.0
1980	163,156	60.7	30.8	8.5
1981	166,611	60.0	30.9	9.1

- Notes:*
1. Total student numbers are slightly different from those shown in table 2.1 because different sources were used. Thus even basic government statistics are not beyond dispute.
 2. New definitions of part-time and external students were uniformly adopted by the universities in 1960 and 1961. These new definitions underlie the abrupt change in the proportion of part-time students in those years. See ABS *Universities* bulletin 1961, p.3, and 1962, p.45.

Source: Based on ABS *Universities* bulletin. Figures for 1981 are preliminary only.

Table 10.2
Proportions of CAE students studying full-time, part-time and externally, 1970-80 (percentages)

<i>Year</i>	<i>N =</i>	<i>Full-time</i>	<i>Part-time</i>	<i>External</i>
1970	37,625	42.0	54.9	3.1
1971	44,351	44.6	52.3	3.1
1972	52,034	47.4	48.8	3.6
1973	61,575	48.6	46.2	5.2
1974	107,202	60.7	33.2	6.0
1975	122,557	61.0	32.7	6.5
1976	134,614	61.4	31.8	6.8
1977	140,312	60.5	31.8	7.7
1978	149,922	56.2	34.3	9.5
1979	155,667	52.3	36.2	11.0
1980	159,476	49.1	38.2	12.7

Source: Based on ABS *Colleges of Advanced Education* bulletins.

In the early years of the CAE system, before the incorporation of state teachers colleges, the majority of CAE students were studying part-time, though few studied externally. In 1980 this was again the case, this time with a greatly increased proportion of external students. With an increase of more than 11 per cent in 3 years in the proportion of part-time students, it is clear that the situation in the CAEs is changing rapidly.

The forces behind these shifts in the distribution of the various types of enrolments are no doubt complex, but it appears there is a swing towards full-time study in times of economic (and institutional) growth, and a move towards part-time study in more uncertain times, such as in 1961 and since 1978. However, more detailed investigation would be required to establish a definite link between unfavourable economic climate and an increased preference for part-time study.

Regarding the social characteristics of part-time students, the findings of studies are pretty well unanimous: while the social composition of part-time students is a little closer to that of the general population than that of full-time students, with some of the less advantaged social groups gaining better representation, part-timers still tend to belong to those groups which dominate full-time higher study.

Most of the information relating to differences between part-time and full-time students concerns socio-economic status and shows that the part-time group has a lower proportion whose fathers possess professional or administrative occupations, university or college education or high income. In keeping with their social origins, more part-time than full-time students have received their education in public schools and less in private schools. These are the main findings of a study of part-time students carried out at the Australian National University in 1968-69 (Education Research Unit, 1970: 16), and are confirmed by the findings of other studies.

Table 10.3 shows the occupational background of new part-time and full-time undergraduate students in selected years at the University of Melbourne. The differences between the two groups are clear: those of professional and administrative background make up a smaller percentage of part-time students, while participation by the farmer and related group is the same in part-time and full-time study; both white and blue-collar groups make up a greater proportion of part-time students. In the same years the proportions of part-time students coming from private schools were 7, 8 and 5 per cent,

Table 10.3
Father's occupation for part-time and full-time first year students
at University of Melbourne in selected years (percentages)

Occupation	1968		1972		1975	
	F/t N = 2196	P/t N = 213	F/t N = 2525	P/t N = 230	F/t N = 2295	P/t N = 182
Professional	26	18	26	15	27	20
Administrative	27	21	29	26	28	26
Clerical, sales	15	18	11	11	11	14
Farmer and related	9	8	9	9	7	8
Mines, transport and communication, sport, services, armed forces	6	11	6	12	6	10
Craftsmen, production and process workers, labourers	17	24	18	28	21	23
Total	100	100	100	100	100	100

Source: University of Melbourne annual first year student intake surveys.

while for full-time students who had gone to such schools the proportions were 28, 32 and 32 per cent respectively.

Tables 10.4 and 10.5 show the occupation and education of fathers of new students entering the University of New South Wales in 1969, according to faculty entered. Some differences appear between faculties in the occupational and educational backgrounds of part-time and full-time students, but overall the part-time students tend to rank lower in terms of SES than the full-timers.

On the basis of his study of applied science students in colleges of advanced education in 1969, Maddox (1970: 177) concluded that perhaps the most significant difference between part-time and full-time students was that part-time students tended to be considerably older than full-time students, and hence more likely to be married and have family responsibilities. 'The social origins of part-time students are not generally very different from those of full-time students except that they are somewhat less affluent; a minority of them probably owe their part-time status to lack of finances for full-time study'. Students from high income families tended to study full-time rather than part-time (Maddox, 1970: 185). Part-time students were less likely to have fathers in regular employment, and in Melbourne (but not elsewhere) were more likely to be of migrant background:

As a generalisation ... it can be said that where there is competition for a limited number of full-time places, as happens in the major institutes of Sydney and Melbourne, the full-time places tend to be taken up by the advantaged and part-time places by students who are in some respect disadvantaged (Maddox, 1970: 187).

Horne and Wise (1970) obtained similar results in their study of business studies and engineering students in colleges of advanced education in 1969. Compared with full-time students part-timers were older, more likely to be male and much more likely to have attended a public secondary school. Catholic students in business studies were more likely than the average to be part-time; Catholic students in engineering, however, were more likely to be full-time (Horne and Wise, 1970: 10-12, 15-16). Differences between part-time and full-time students in terms of occupational background and father's education were the same as those found by Maddox and others (Horne and Wise, 1970: 12-13).

Table 10.4
Occupational background of part-time and full-time first year students in selected faculties of the
University of New South Wales, 1969 (percentages)

	<i>Applied science</i>		<i>Architecture</i>		<i>Commerce</i>		<i>Engineering</i>		<i>Science</i>		<i>All faculties</i>	
	<i>F/t</i> N = 205	<i>P/t</i> N = 31	<i>F/t</i> N = 136	<i>P/t</i> N = 25	<i>F/t</i> N = 233	<i>P/t</i> N = 338	<i>F/t</i> N = 378	<i>P/t</i> N = 173	<i>F/t</i> N = 304	<i>P/t</i> N = 91	<i>F/t</i> N = 2131	<i>P/t</i> N = 658
Professional	20	16	24	16	11	12	18	10	18	18	19	13
Managerial	23	23	29	20	30	23	21	18	21	13	24	20
Farmer, grazier	7	3	2	4	3	4	5	3	4	6	4	4
Own small business	15	10	13	16	18	13	12	9	11	12	14	12
Skilled tradesman	10	29	13	20	15	18	15	27	15	25	14	22
Sales, clerical	7	3	6	4	8	12	11	14	11	10	9	12
Service, transport	5	10	4	8	4	4	4	3	6	3	6	4
Unskilled	6	6	6	12	5	8	8	8	8	7	6	8
No information	7	—	1	—	6	6	4	7	6	7	5	6

Source: Katz, Barrett and Firth (no date), *The Freshers of 1969—Characteristics and Performance*, p.6.

Table 10.5
Father's education of part-time and full-time first year students in selected faculties
of the University of New South Wales, 1969 (percentages)

	<i>Applied science</i>		<i>Architecture</i>		<i>Commerce</i>		<i>Engineering</i>		<i>Science</i>		<i>All faculties</i>	
	<i>F/t</i> N = 205	<i>P/t</i> N = 31	<i>F/t</i> N = 136	<i>P/t</i> N = 25	<i>F/t</i> N = 233	<i>P/t</i> N = 338	<i>F/t</i> N = 378	<i>P/t</i> N = 173	<i>F/t</i> N = 304	<i>P/t</i> N = 91	<i>F/t</i> N = 2131	<i>P/t</i> N = 658
Primary only	8	13	11	20	12	13	13	11	16	13	12	13
Some secondary	39	55	32	24	39	47	39	45	38	44	38	45
Completed secondary	12	16	14	20	13	12	13	13	11	10	13	12
Tertiary (non-uni)*	19	16	19	24	20	14	17	19	18	17	17	16
Tertiary (uni)*	17	—	22	8	12	10	14	7	15	13	17	9
No information	4	—	1	4	4	4	2	6	3	3	3	4

* Includes those who did not complete a course of study.

Source: Katz, Barrett and Firth (no date), *The Freshers of 1969—Characteristics and Performance*, p.7.

A comparison of the socio-economic background of part-time and full-time students at both universities and colleges of advanced education was made in the course of the survey of students' incomes and expenditure carried out by the Australian Department of Education in 1975. The results relating to occupational background are shown in table 10.6. The part-time/full-time difference shows up in the upper status regions of SES, not the lower. Thus among the professional and administrative categories the status order is university full-time, CAE full-time, university part-time, CAE part-time. A larger proportion of students with manual backgrounds were studying in CAEs than in universities, but there were still more with such backgrounds studying full-time in CAEs than studying part-time. Thus 17 per cent of part-time CAE students had fathers who were manual workers, compared with 15 per cent of full-time university students; on the other hand the proportion of part-time CAE students with professional backgrounds was only half that of full-time university students—12 per cent compared with 24 per cent. In other words, while representation of those with professional backgrounds decreased among part-time students, this was not compensated for by a corresponding rise in the proportion of manual students, since they participated less in part-time than in full-time study both at universities and at CAEs.

The really significant difference between part-time and full-time students which shows up in table 10.6 is in the much higher proportion of part-time students whose fathers are not in the workforce, a proportion which, moreover, is the same for CAE students as it is for university students: 34 or 35 per cent, compared with 13 or 14 per cent for full-time students. This difference also shows up in the incomes of students' fathers: 22 per cent of part-time university students and 18 per cent of part-time CAE students stated that their father had no income (which usually meant they were deceased), compared with 7 per cent of full-time university students and 8 per cent of full-time CAE students. So while a greater proportion of part-time than full-time students are of lower socio-economic

Table 10.6
Occupational distribution of fathers of part-time and full-time higher
education students in Australia, 1974, compared with the
male population age 45-54 years (percentages)

Occupation	Full-time students		Part-time students		Male population age 45-54 (1971 Census)
	University N = 1896	CAE N = 1402	University N = 602	CAE N = 556	
Professional	24	17	15	12	7
Administrative	19	15	13	10	11
Clerical, sales	10	10	11	10	12
Farming and related	7	11	5	5	9
Mines, transport and communication, services, sport, armed forces	9	11	6	8	13
Craftsmen, process workers, labourers	15	20	14	17	37
Not in workforce*	14	13	34	35	7
No information	2	3	2	3	4
Total	100	100	100	100	100

* Includes 1 per cent unemployed in each case.

Source: Commonwealth Department of Education, 1975: 9.

background, it seems they also will include a number of students of high socio-economic background who do not have the financial support available to those with a working father.

However it is difficult to judge the extent to which not having a father in the workforce is a cause or an effect of being a part-time student. It would be nonsense to suppose that all part-time students without working fathers are dependent children of widows or chronic invalids, though no doubt some are. More to the point is the observation made earlier, that part-time students tended to be considerably older than full-time students. The older a student is the more likely it is that his or her father will be deceased, and also that he or she will be married, with children and financial responsibilities. Of the sample in the survey of student costs and incomes, 34.4 per cent of part-time students had one or more dependents; for full-time students the figure was only 3.2 per cent. This leads to the conclusion that the main social group to benefit from opportunities for part-time study consists of older students who, commencing higher study at a relatively late stage of their lives, find they have to reconcile the demands of time and money made by study with their responsibilities to their dependants. At the same time there will be a proportion of school leavers who prefer to undertake part-time higher study for reasons such as the desire to be financially independent or a wish to take up the role of a worker immediately. According to information gathered in the Regional Colleges Project, such students are more likely to be male than female, and prefer a multi-purpose CAE to either teachers college or university (Anderson *et al.*, 1975: I, 187).

External Study

External study clearly presents opportunities for a category of students different from those studying part-time internally, since it is directed at students who for some reason are unable to attend higher education institutions on a regular basis, while internal part-time study is strictly an on-campus affair. It is to be expected that not only will many external students come from country areas in which there is no opportunity to study locally, but more particularly their number will include students from those localities who are unable to move for study purposes—that is, again, those who are older, with job commitments and family responsibilities. However, there will also be students who live in the vicinity of a higher institution, either in the city or the country, but are either unable for some reason to attend the campus or unable to undertake their preferred course of study there.

Institutions offering external studies have tended to place limits on access for students with other options from studying externally. For example, external enrolment at the University of Queensland is offered primarily to Queensland residents living outside the Brisbane metropolitan area, residents of Papua New Guinea and of the Northern Territory. Other students are accepted in special circumstances. Macquarie University offers its external programs to residents of New South Wales, the Australian Capital Territory and Norfolk Island, with preference being given to those from outside the Sydney metropolitan area. In 1973 more than 60 per cent of external students enrolled at Australian universities lived either more than 300 km from the campus in the same state, interstate or overseas. Nevertheless, more than one-third of external students of the University of New England in 1973 lived in the Sydney metropolitan area (Committee on Open University, 1974: 39–40). The new Deakin University is the first university in the populous south-east of Australia to make specialised provision for external students. While casting its net as far as possible most of its early external enrolments appear to be from the nearby metropolis.

It should be noted that although the majority of external students in Australia live in the country, this does not necessarily mean that they grew up and attended school in country areas. As we shall see, the great majority of external students are professionals or upper white collar workers, and most of the people who enter such occupations come from the cities. It seems highly likely, therefore, that most of the external students in country areas are people who originally came from the cities but have moved to the country for occupational reasons.

There is little information on the occupational distribution of external students. The only published data come from the University of Queensland, and it is difficult to judge how representative this would be of the institutions whose external study offerings are concentrated in other fields. Table 10.7 shows the occupational distribution of external students at the University of Queensland in 1973 according to faculty. It must be emphasised that it is the *occupations* of students that are shown, not their *occupational background* as in the case of full-time and part-time students. Any evidence in these data concerning the extent to which external study functions as an avenue for upward social mobility, therefore, will be of a different sort from that for other students.

It is clear that the majority of external students already have a tertiary qualification of some sort and are studying for a further one either to upgrade their professional standing or for personal satisfaction. Although the level at which they are employed in some occupational groupings is uncertain, it seems that there are few students who are not upper white collar workers or professionals. Manual workers—except for the special case of housewives—are virtually totally excluded. Accordingly, the romantic image of a stockman on some remote cattle station wiping the dust from his boots as he sits down to study after a hard day in the saddle has to be replaced with the more prosaic one of a teacher or public servant, probably in a country town, looking for intellectual stimulation in his isolation, or, more likely, for the additional qualification that will bring promotion—and perhaps a transfer to the city. In 1963 teachers and public servants made up 63 per cent of the external enrolments at the University of Queensland, while 81 per cent of the University of New England's external students were teachers (Martin Report, 1964: I, 76). In fact, between 1955 and 1964 teachers made up 87 per cent of New England's external enrolments, and in 1973 still made more than 70 per cent of the total. At Macquarie University in 1973 the proportion of external students who were teachers was similar, and in colleges of advanced education almost 60 per cent of external enrolments were in teacher education courses (Committee on Open University, 1974: 41). The occupations of University of Queensland external students in 1973 were as shown in table 10.7, with the great majority still coming from teaching or the public service.

On the basis of such information as there is—which in the case of external students is very little—it appears that while facilities for part-time and external study present important opportunities for many individuals who are prevented by circumstances from studying full-time at a higher institution, particularly older students with family responsibilities, they make only a limited contribution to diversifying the social mix of students. Part-time and external study has functioned mainly to increase access for the social groups which are already well represented in higher education.

Nor is there anything wrong with this, as long as we are clear about what is going on. Both from the point of view of the individual and society it is totally desirable that, no matter what their social background, those who are prevented from studying full-time by personal circumstances are given another opportunity to gain a higher education or to gain qualifications additional to those they already have. But it must be recognised that the existence of the opportunity for either part-time or external study alone does little to

Table 10.7
Occupations of external students by faculty, University of Queensland, 1973

<i>Occupational grouping</i>	<i>Arts</i>	<i>Commerce and economics</i>	<i>Education</i>	<i>Law</i>	<i>Science</i>	<i>Others</i>	<i>Total</i>	<i>Percentage</i>
Teaching profession	722	170	962	6	34	1	1895	57.4
Administrative and clerical— government and other	105	118	19	22	—	1	265	7.8
Armed services	95	80	32	12	1	1	221	6.7
Home duties	140	20	42	9	2	—	213	6.5
Engineering, science and technology	32	144	—	3	4	—	183	5.5
Commerce and communications ^a	30	57	—	7	—	—	94	2.8
Community services ^b	56	8	22	2	—	—	88	2.7
Primary industry	8	43	1	3	3	—	58	1.8
Medicine/pharmacy	19	9	—	3	3	—	34	1.1
Other professional ^c	14	28	—	22	—	—	64	2.0
Others or not stated	82	53	26	17	7	2	187	5.7
Total	1303	730	1104	106	54	5	3302	100.0

^a Includes banking, business, communications, trade and transport.

^b Includes community services, library work, psychology, religious work and social work.

^c Includes architecture, dentistry, forestry, law, journalism, veterinary science.

Source: University of Queensland, *Statistics*, 1973.

help those social groups considered disadvantaged. The fact is that facilities for part-time and external study can assist those already qualified for higher education but impeded by the need to stay in employment or live remote from the campus. There are many such students but they are in the main not from the strata of society grossly under-represented in higher education. Once again we are faced with the fact that higher education is only the last phase in the education process, and that new avenues of access will not do much to overcome low aspirations or poor achievement of earlier stages.

Because the demands of part-time and external study are much greater than those of full-time study, particularly for older students who have to meet the demands of job and family, such study requires a correspondingly higher level of aspiration and personal commitment, as well as efficient study techniques. This makes it easy to understand why individuals who were lacking on these counts at secondary school, and consequently did not continue to full-time higher study, are unlikely to show great interest in part-time or external study later in life. Nevertheless, there will be some, and such people will be helped by a liberal admissions policy for disadvantaged and mature students, such as most institutions have begun to adopt* (see Committee on Open University, 1974: 47-8). If enrolments by school leavers fall in the future, and institutions find it necessary to attract more students to maintain numbers, they may be encouraged to develop further the opportunities for part-time and external studies. This could lead to exciting new developments. Most of those involved in higher education have bemoaned the end of the expansionary boom and complained that limited funds will stifle new developments. But some of the significant innovations in Australian higher education—including the initiation of part-time and external study programs—have been carried out when institutions have been struggling to proclaim their viability. Perhaps now that expansion has all but ceased and the soft options have gone, equally radical developments will occur.

Honours Students

It was La Nauze (1940) who demonstrated for the first time that there were important differences in the social background of students studying at different levels at university. In his study of the school background of male graduates of the University of Adelaide between 1927 and 1937, La Nauze found that while 71.2 per cent of arts pass graduates had attended a public secondary school, this was true of only 13.8 per cent of arts honours graduates, the vast majority having attended a private school. Similarly, in the case of science pass graduates, 64.8 per cent had attended a public secondary school, but only 30.8 per cent of science honours graduates had done so (La Nauze, 1940: 47). According to La Nauze this dissimilarity in the socio-economic background of pass and honours students as indicated by type of school attended is accounted for by the fact that approximately 80 per cent of the arts pass students and 40 per cent of the science pass students were trainee teachers dependent on their allowance from the State Education Department for the opportunity to study at university. That a significant number of pass students in science did not have the financial support of a teacher traineeship, but nevertheless had attended a public secondary school, La Nauze explained in terms of the fact that it was possible to study for that degree part-time (La Nauze, 1940: 52).

The differences between arts pass and honours graduates at the University of Melbourne in 1939 noted by Henderson were not nearly as marked as those found by La

* On the case of the University of New South Wales, see E. Barrett and J.P. Powell, 'Mature Age Unmatriculated Students and the Justification of a More Liberal Admissions Policy', *Higher Education*, Vol. 9, No. 4 (July 1980), pp.365-84.

Nauze in Adelaide. Nevertheless, more pass graduates than honours graduates (33 per cent compared with 24 per cent) had attended a public school (Henderson, 1946). It is obvious that different forces were operating in the two states, but a lot of work would need to be done to identify them.

More information relating to honours students at the University of Melbourne is provided by Anderson (1960) and Serle (1971). Anderson compared the background and attitudes of third year arts honours students with those of arts students regarded by the heads of their departments as being of honours potential but enrolled for the pass degree. He found that while the proportion of students with fathers in professional occupations in both groups was more or less equal, many more of the honours students' fathers were in 'big business' or managerial jobs, while among students of honours potential there was a much higher proportion from the lower white collar and manual worker categories. Many more students doing honours than those of honours potential had attended a private school. Also of the large proportion of potential honours students who had attended public secondary school, a much greater proportion than of the honours students had attended school in the country. Three-quarters of the potential honours group indicated that they planned to work as teachers (including almost all of the country students), and most had Education Department finance for their studies; honours students nominated a wider range of occupations, with many hoping for an academic position (Anderson, 1960: 89-92).

Higher Degree Students

The most important source of information regarding differences between higher degree and undergraduate students is the survey carried out in 1976 by the Education Planning Group of the Commonwealth Department of Education (1978) of some 64 per cent of the 6500 full-time and 74 per cent of the 11,000 part-time higher degree students in institutions of higher education in Australia. Virtually all of these were at university since higher degree work is only a minor activity in the colleges. Comparison of the results of that survey with those of the survey of Australian undergraduate students by Anderson, Boven, Fensham and Powell (1978) gives an excellent opportunity to see how the composition of higher degree students differs from that of new beginning students, using two very large nationwide samples.

The occupational background of higher degree students and new university undergraduates in 1976 according to the two studies is shown in table 10.8. The first observation that needs to be made is that the occupational distribution of female higher degree students—who are a much smaller proportion than among the undergraduates (22.9 per cent compared with 40.9 per cent)—is much more concentrated in the professional and managerial categories than that of male higher degree students. A slightly higher socioeconomic background for female higher education students than for males was reported by some of the studies discussed in chapter 9, and it appears that the difference is amplified at the higher degree level. No doubt this is partly accounted for by the fact that many girls of working class background who undertake higher study, even at university rather than teachers college, plan to become teachers and hence have relatively little need for a higher qualification for career purposes. However, it seems most likely that all the factors that affect entry to higher education for girls in the first place also influence the likelihood of them studying for a higher degree: these include family conceptions of what is 'proper' for women; cultural climate of the home; and parents' ability to provide positive encouragement and assistance to their daughter. That parents actively encourage educational aspirations rather than passively acquiesce to whatever their children happen

Table 10.8
Occupational background of higher degree students* and new university undergraduates, Australia, 1976 (percentages)

<i>Father's occupation</i>	<i>Higher degree students</i>		<i>New undergraduates</i>	
	<i>Male</i> N = 9476	<i>Female</i> N = 2806	<i>Male</i> N = 3002	<i>Female</i> N = 2078
Upper professional	15.6	23.6	20.2	20.0
Lower professional	10.2	12.1	11.1	11.1
Large employer or manager	11.2	12.0	11.7	12.7
Small employer or manager	17.5	17.6	17.9	16.5
Intermediate non-manual	10.8	9.0	9.2	8.8
Clerical and related	5.4	3.9	4.3	4.3
Foremen and skilled	12.9	9.9	11.4	12.3
Semi-skilled	9.1	4.8	9.4	7.9
Farm owner	7.1	7.0	4.8	6.1
Home duties	0.2	0.2	0.3	0.1
Not stated	—	—	—	—
Total	100	100	100	100

* Includes a small number of students doing higher degrees in CAEs.

Note: Students giving no response to the questionnaire item have been excluded.

Source: Based on Anderson *et al.*, 1978: 103; Commonwealth Department of Education, 1978: table 36.

to indicate is more important in the case of girls than boys simply because the social forces against educational achievement by girls are greater. This remains true at the higher levels.

The second point which emerges from table 10.8 is that male higher degree students were significantly less likely than male undergraduates to have fathers who are either professionals, employers or managers: only 54.5 per cent of the male higher degree students had such fathers, compared with 60.9 per cent of new male undergraduates. For female students, however, the reverse was true, with 65.3 per cent of higher degree students and 60.3 per cent of new undergraduates having fathers employed in these categories.

The reason for the relatively low representation among male higher degree students of those with fathers working in a professional or managerial capacity is a matter for speculation. As we have seen, what evidence there is relating to honours degree students indicates that they tend to come from professional and managerial families and have attended a private school. This would lead us to expect a similar finding in the case of students studying for Masters degrees and doctorates, since the majority of higher degree students will have completed an honours degree beforehand. Presumably some professional and managerial families find careers in business or the professions more attractive than careers in academic research.

A comparison of the results for father's highest level of education for higher degree and new undergraduate students is shown in table 10.9; they parallel those for father's occupation. Fathers of female higher degree students were more highly educated than those of male higher degree students; fathers of male undergraduates had more education than those of male higher degree students, but for female students the opposite was true.

The most plausible explanation for these somewhat surprising results is that the study and career structure of bright male and female students varies somewhat according to socio-economic background. Thus bright male students of lower socio-economic background go on to study for a higher degree after completing an honours course, while those of higher socio-economic background simply obtain the honours degree and then

Table 10.9
Highest level of education achieved by fathers of higher degree students
and new university undergraduates, Australia 1976 (percentages)

<i>Father's education</i>	<i>Higher degree students</i>		<i>New undergraduates</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
University degree	16.0	24.1	20.2	30.9
Other post-secondary	15.6	17.7	14.5	13.5
Matriculation	11.7	13.2	10.1*	9.5*
Some secondary	37.1	31.7	40.0	42.9
Primary	19.5	13.3	15.1	13.5
Total	100	100	100	100

* Includes those who have completed 5 or 6 years of secondary school.

Note: All students who did not respond to questionnaire item have been excluded. Both sources give little information concerning definitions of their 'other post-secondary' categories which makes comparisons for that category approximate only.

Source: Based on Anderson *et al.*, 1978: 96; Commonwealth Department of Education, 1978: table 33.

(as we have seen elsewhere) tend to enter a profession or go into business. For bright female students the pattern is different: those of higher socio-economic background study at the honours level and then (particularly if they have a mother with a university education) go on to higher study; those of lower socio-economic background, however, undertake an honours degree with much less frequency and consequently cannot proceed to a higher degree.

One other point of comparison of the background of higher degree students and new undergraduates as revealed by these two studies is that of migrant origin. Unfortunately the categories used in analysis of the data were not the same, but it is nevertheless possible to say that 61.2 per cent of the male and 61.5 per cent of the female higher degree students had Australian mothers, compared with 64.6 per cent of male and 66.6 per cent of female university undergraduates. The only other groups for which a comparison is possible is those with Asian mothers: 10.4 per cent of male and 8.3 per cent of female higher degree students fell in this group, compared with 5.8 per cent of male and 4.0 per cent of female undergraduates (Commonwealth Department of Education, Education Planning Group, 1978: table 29; Anderson *et al.*, 1978: 125). In other words, the high educational aspirations of students with overseas backgrounds continue to be apparent at the post-graduate level, with participation by students of a non-Australian background rising still further beyond the representation of their national groups in the appropriate age group of the population. However, since the increase in proportion of males of non-Australian background at the higher degree level is more than accounted for by the increased representation of males of Asian background, participation by other migrant groups will have decreased slightly. In the case of female higher degree students not all, but *most*, of the increased proportion of non-Australian students is due to the increase in those of Asian background; overall other migrant groups would have marginally increased their participation. While the exact number of overseas students included in the Asian category is not known, it can confidently be said that it would be less than that doing undergraduate study, since most overseas students come to Australia to study for a particular professional qualification of the sort usually acquired by means of a bachelor degree. A decrease in the proportion of overseas students included in the Asian category at the higher degree level would indicate a proportionately stronger tendency for migrant students of Asian background to undertake higher study.

11 Social Background of Technical and Further Education Students

The Origins and Purposes of TAFE

Although the literature on both technical and adult or further education in Australia is quite extensive, it contains little information concerning the background of students who undertake it. It is a topic, apparently, which has interested no one. In part this may be because it has always been assumed that technical education is and always has been simply a working class affair, and that vague generalisation has seemed information enough. In the case of further education it has probably been because until recently it was not regarded as 'real' education at all, but rather as akin to other leisure activities such as playing golf or watching television.

The information given on technical and further education students in the chapters on age and participation by women showed there were major differences between students in each of the TAFE streams. If those differences exist it is quite likely that there will also be differences between streams in such things as socio-economic background, schooling and ethnic origins.

Before examining some of the findings of the only survey of TAFE students carried out to date—by the Commonwealth Department of Education—it will be worth looking at some aspects of the history of technical and further education in Australia. This will help us gain a better understanding of the present day system and the students in it. In this connection the work of Murray-Smith (1966, 1968, 1971) is especially important.

As Murray-Smith tells us, the development of technical education in Australia can be traced back to the concept of mechanics' institutes the early colonists brought with them from Britain. During the period 1820–50

the middle classes . . . intensified their efforts to promote the rational investigation of natural phenomena affecting the material welfare of the colonies, to develop a well-rooted indigenous cultural life and to construct a stable hierarchical society based on homeland patterns. Thus strong emphasis was placed on the intellectual edification and the moral regeneration of the working man. The main channels for this activity were the mechanics' institutes . . . (Murray-Smith, 1968: 214).

The positive contribution made by the mechanics' institutes was that they were based on the principle that those of the lower social classes should have educational opportunities beyond primary school. This fitted happily with the widespread belief that a wide range of technical skills was needed for the development of the new nation. On the negative side, however, the notions promoted by the mechanics' institutes include:

. . . the tradition that technical education is somewhat peripheral to the main purpose of education properly so-called; that it is of a continuative or part-time nature rather than a full and necessary component of the educational spectrum; that it is of a banal or essentially lower-class character and can be financed accordingly; and that it remains a matter of individual benefit and improvement rather than an integral part of a coherent policy of national welfare and security (Murray-Smith, 1966: 9).

The rapid changes taking place in social and economic conditions, however, soon forced these ideas of self-improvement by the labouring classes under the patronage of their social superiors to be revised. The forms of technical education which evolved towards the end of the nineteenth century were the product of the interaction of an emergent Australian liberalism with the contemporary technological demands and aspirations of society.

The liberal impetus for the foundation of the major technical colleges throughout Australia in the years 1880-1900 likewise is responsible for weaknesses of the current technical education system as well as for its strengths: it built into the rationale for the technical colleges some of the contradictions in its own ideology. As a result the colleges 'were designed to meet a complex of differing and even contradictory roles and, as the liberal vision receded, they themselves fell on hard times...' (Murray-Smith, 1966: 17).

These few historical details are enough to show that underlying the establishment of the technical education system was not just the belief that a workforce possessing manual and technological skills was indispensable for national economic development, but also the conviction that individuals near the bottom of the social heap should have the opportunity for personal development and advancement through education. From its inception the system had a class character: its efforts were specifically directed to those of the lower social strata.

It is instructive to compare the historical perspective with current statements about the purposes of technical and further education. According to the Australian Committee on Technical and Further Education (1974: I, 6), technical and further education includes all education which enables the individual to:

- (a) acquire or make progress towards acquiring, by full-time or part-time studies, assessable occupational qualifications involving mental, manual or social skills; and/or
- (b) acquire or seek to acquire, usually on a part-time basis, knowledge or skills for secondary, additional, or supplementary occupational purposes, or for the purpose of personal development or enrichment, or to utilise leisure creatively.

There are two main differences between these goals and those the mechanics' institutes set themselves 150 years ago. One is that the TAFE Committee did not recognise that TAFE clientele came from any particular social group or strata. The other main difference is that in the modern conception there is a split between technical training and general personal development, with the latter being hived off into further education.

Technical Education is not Further Education

The various streams of modern technical education offer instruction at levels ranging from the professional to the preparatory, leading students to anything from a tertiary-level qualification to the attainment of fundamental skills which are useful for employment purposes but do not bring them up to the level of a recognised qualification of any sort. This fact alone would enable it to attract students with a wide range of backgrounds.

The results of the 1975 TAFE student survey by the Commonwealth Department of Education (1978) are presented in two sections, one dealing with students in streams 1 to 5 (that is, professional, para-professional, trades, other skilled, and preparatory), the other with students in stream 6, adult or further education. The reason for this division was methodological. Instead of basing findings simply on the results obtained from the sample, the Department used an estimation procedure which included post-sampling adjustments aimed at producing student population figures in agreement with the

statistical survey of courses and enrolments carried out by the TAFE Commission in 1975 (1976b). This method proved impossible to apply in the case of stream 6 and accordingly results for that stream are simply unweighted sample percentages.

This separation of further education students from those in the other streams turns out to be very useful for our purposes here, for it enables us to see that in terms of background as in most other things adult education students are often different from the remainder of TAFE students. The uniting of technical education and further education under one bureaucracy cannot disguise the fact that these two arms of TAFE cater for two dissimilar sorts of people. For the sake of convenience, in the following discussion 'technical education students' is used to refer to those in streams 1 to 5, while 'further education students' is used to refer to those in stream 6.

Socio-economic Background

The occupations of father of students in the technical branch of TAFE are shown in table 11.1, together with the occupational distribution of the 45-54 years age group of the male population in 1971. Comparison of the two shows that in terms of occupational background technical education students reflect the occupational distribution of the workforce quite faithfully. In this they provide a sharp contrast to university and college students, as we saw in chapter 9. That the great bulk of the students have fathers in blue collar occupations is what we would expect in post-secondary education which is largely oriented to provision for the needs of such occupations. However, it is perhaps surprising to see that the proportion of technical students with fathers in professional and managerial occupations more or less matches those occupational groups in the workforce. It is also clear from the table that more male than female technical students come from blue collar homes; females are more likely to have professional, white collar, or farming backgrounds. Taking this together with the fact that girls from blue collar homes are very

Table 11.1
Occupational distribution of fathers of technical education students
(TAFE streams 1 to 5), 1975 (percentages)

<i>Father's occupation</i>	<i>Males</i> N = 290,900	<i>Females</i> N = 143,900	<i>Persons</i> N = 434,800	<i>Males 45-54</i> <i>years</i> <i>1971 Census</i> N = 674,427
Professional	7.5	9.5	8.1	7.5
Administrative	7.3	9.2	7.9	12.4
Clerical, sales	14.1	14.6	14.3	12.4
Farm and related	10.2	15.8	12.1	10.9
Mines, transport and communication, sport, services, armed forces	14.2	15.7	14.7	12.5
Craftsmen, production workers, labourers	46.7	35.3	42.9	39.9
Not known or not in workforce	—	—	—	4.4
Total	100.0	100.0	100.0	100.0

Note: Percentages have been calculated to exclude the 'not known' category.

Source: Based on Commonwealth Department of Education, 1978: 45-50.

Table 11.2
Occupations of technical students with jobs
(TAFE streams 1 to 5), 1975 (percentages)

<i>Occupation</i>	<i>Males</i> N = 291,000	<i>Females</i> N = 88,900	<i>Persons</i> N = 379,900
Professional	13.0	22.8	15.3
Administrative	3.1	1.4	2.7
Clerical, sales	18.0	52.5	26.0
Farm and related	2.6	0.9	2.2
Mines, transport and communication, sport, services, armed forces	5.8	17.6	8.5
Craftsmen, production workers, labourers	57.5	4.6	45.2
Total	100.0	100.0	100.0

Source: Based on Commonwealth Department of Education, 1978: 40.

Table 11.3
Occupations of further education students with jobs
(TAFE stream 6), 1975 (percentages)

<i>Occupation</i>	<i>Males</i>	<i>Females</i>	<i>Persons</i>
Professional	27	38	33
Administrative	4	2	3
Clerical, sales	28	47	39
Farm and related	8	1	4
Mines, transport and communication, sport, services, armed forces	7	8	7
Craftsmen, production workers, labourers	26	3	13
Total	100	100	100

Source: Commonwealth Department of Education, 1978: 85.

unlikely to go to university or college, we can see that the outlook for working-class girls in post-secondary education is relatively bleak.*

Unfortunately information on the occupations of parents of further education students was not published, but some idea of the difference between them and the technical education students may be gauged from tables 11.2 and 11.3, which show the occupations of those students in both groups with jobs. The different distributions from male and female technical education students in table 11.2 serve as a reminder that we should not regard the census occupational categories shown as any more than rough indicators of occupational status. The large number of females falling in the 'professional' category is due to the fact that para-professionals (the majority of whom are women) come into that category. Very few women, on the other hand, are to be found in the trades which take

* Further information on female participation in technical education is provided by Moira Gordon and Gerald McCalden, *Women and Technical Education: A Newcastle and Hunter Region Study*, Newcastle, NSW: The Datex Co-operative Ltd, 1977; and Gerald McCalden, Moira Gordon and Margaret Jurd, *The Post-School Year: A Study of the Experiences and Attitudes of Newcastle School Leavers on Entering the Workforce*, Newcastle, NSW: The Datex Co-operative Ltd, 1981.

Table 11.4
Type of school attended by TAFE students* 1975 (percentages)

Type of school	Streams 1 to 5		
	Males	Females	Persons
Public	81.9	72.9	79.0
Catholic	13.1	17.6	14.6
Private	5.0	9.5	6.5
All	100.0	100.0	100.0

Stream 6			
Public	72	69	70
Catholic	16	16	16
Private	13	15	14
All	100	100	100

* Eighty-nine per cent of TAFE students in 1975 had attended secondary school in Australia.

Source: Based on Commonwealth Department of Education, 1978: 12, 77.

up the majority of the male students.* Rather they are concentrated in the clerical category.

The differences reflect the different career opportunities for men and women rather than different rates of educational participation determined by SES. Nevertheless, comparing table 11.2 with table 11.3, it is quite clear that the proportion of further education students with professional occupations is substantially higher than that of technical education students, while the proportion with jobs in trades or production (in the case of males) and with clerical jobs (in the case of women) is down. So it seems that further education attracts a disproportionate number of students from the 'higher' occupations—especially the professional category—and to that extent resembles college or university education rather than technical education. Not all further education students are in the paid workforce: 89 per cent of the males but only 49 per cent of the females had jobs. Many of the women, of course, will be houseworkers.

As a leisure-time activity education attracts a disproportionate number of students of higher socio-economic status. This is further substantiated by the difference in school background between further education students and those in technical education, as table 11.4 shows. As in the case of occupational background, the school background of technical education students has more or less the proportions of the different sectors in the school system as a whole (see table 5.14), though again there is evidence that the socio-economic background of female students is higher than that of males, with more having attended private schools. The proportion of further education students who attended private schools is twice that of technical education students, and the proportion who have received a public school education is correspondingly lower.

Ethnic Background

There are also differences of national background between technical education and further education students. Table 11.5 shows that the proportion of Australian-born further education students is only slightly less than that of technical education students,

* In 1975 17 per cent of the 15-19 year olds in Australia were enrolled in TAFE courses but participation of the sexes was very unequal. For males the participation rate was 23 per cent and 13 per cent were apprentices. For females the participation rate in TAFE was 10 per cent and only 1 per cent were apprentices (Commonwealth Tertiary Education Commission).

Table 11.5
Country of birth of TAFE students, 1975 (percentages)

Country of birth	Streams 1 to 5	Stream 6
Australia	82	80
Other English speaking	9*	14
Other	9	6
All countries	100	100

* Includes only New Zealand and Britain.

Source: Based on Commonwealth Department of Education, 1978: 9, 76.

which corresponds to the proportion (81.7 per cent) of the 15-59 years group of the population born in Australia (preliminary 1976 census figures). The proportion of further education students born in non-English speaking countries is also lower than among those doing technical courses. Presumably this can be accounted for largely in terms of language problems and the different social priorities which operate in many ethnic groups. While migrants experiencing problems with English will be ready enough to struggle with learning in that language in order to improve their qualifications and job opportunities, it is quite another thing to look for self-development and creative leisure in an alien tongue. For many migrants it is more important to spend their free time within their family and ethnic community maintaining their native language and culture rather than pursuing individual educational goals.

As we pointed out in chapter 7, the influence of an ethnic background is felt by many individuals who themselves have been born in Australia. The country of birth of the parents, especially of the mother, needs to be considered if members of the second generation are to be included in discussion of the effects of migrant background on participation in post-secondary education.

Table 11.6 shows that the proportion of technical education students with mothers born in various countries, together with estimates of the proportions of the 15-19 years group of the population in 1976 with such mothers. Since only 36 per cent of the technical

Table 11.6
Country of birth of mothers of technical education students
(TAFE streams 1 to 5), 1975 (percentages)

Country of birth of mother	Technical education students, 1975	15-19 years population group, 1976
Australia	72.9	
New Zealand	0.8	84.4
Britain	12.7	
Germany	1.1	1.2
Greece	0.9	1.7
Holland	1.6	1.3
Italy	2.7	3.5
Yugoslavia	0.8	1.3
Other	6.7	6.6
All countries	100.0	100.0

Source: Based on Commonwealth Department of Education, 1978: 183, preliminary 1976 census figures, and estimates by Price and Pyne (1976). The estimates by Price and Pyne are based on *linguistic* rather than national background, consequently the figure for Australia etc., for the 15-19 years group includes all those of English speaking origin, while technical education students of English speaking background other than from the countries listed (e.g. USA, Canada), are included under 'other'.

education students were 19 years or younger in 1975 inferences about participation rates can only be approximate. Generally it appears as if the representation of students from the various national groups in Australia is roughly in accord with the proportion in the population. If the differences are reliable then the groups apparently under-participating most are the Greeks, Italians and Yugoslavs. The studies of migrant aspirations and participation (see chapter 7) suggest that, despite doing quite well at secondary school, many Dutch students are relatively uninterested in higher study but follow their father's footsteps to the skilled trades. Here it must also be remembered that many technical education students are older—44 per cent stated their main purpose in doing their course was to up-date their skills—therefore national groups such as the Dutch, which have a large proportion of skilled workers, could be expected to participate in technical education more than most. The southern European groups who were under-represented in higher education are also under-represented in technical education, despite their high educational aspirations. Failure by members of these groups to gain entry to a university or college does not appear to turn them to technical courses. The language difficulties common among members of these groups presumably militate against their participation in technical education almost as much as against their undertaking higher studies. It may be evidence too that these groups at least do not regard technical education as a last resort, a poor substitute to be tried only when university or college proves impossible. Whatever the reasons, it remains the case that southern European migrants are under-represented in all sectors of post-secondary education.

Conclusion

Information on the background of technical and further education students remains sparse indeed. While the study discussed in this chapter is an important beginning it still does not give us a reliable description of differences between students in the various streams of technical education, which since they are taught at different levels to students whose age and sex distributions are quite different could be expected to draw students from different social groups.

As a group, technical education students are representative of the population in terms of occupational background and schooling. The proportion born in Australia corresponds with the general population. When national background as indicated by mother's country of birth is considered it appears that those of southern European descent may be strongly under-represented in technical education, although not to the extent that they are absent from higher education.

Further education (stream 6) students tend to have a somewhat higher socio-economic background than those in technical education (streams 1-5). Many more of them have professional or other white collar jobs, while the proportion employed as tradesmen, production workers or labourers is less than one-third of the proportion taking technical courses. They are also more likely to have attended a private rather than a public school. The proportion of further education students of non-English speaking migrant background is, however, less than among technical education students.

12 A Future for Privilege?

The conclusion from this review of research covering a period of 50 years is that higher education in general and universities in particular remain socially elite institutions. The over-representation of students from high socio-economic backgrounds has remained constant at least since 1950, as has the under-representation of those of lower socio-economic background.

From one perspective this seems extraordinary. Given the changes which have taken place in Australia since World War II, and in higher education especially, one might reasonably have expected participation to have become more representative of all social groups. In the late 1940s there began a period of intense social and economic growth. Through natural increase and large-scale migration the population virtually doubled in 35 years. Education expanded to the extent that secondary education to 15 years is now universal and more than one student in three stays on to year 12; the number of university students has doubled every dozen years or so, and the CAE system, despite its small beginning from teachers colleges and senior technical colleges, now equals the universities in size. Along with this expansion have come schemes of financial assistance which reduce, but by no means eliminate, cost barriers to participation. Yet despite all these changes, the growth of numbers and demand for higher education is accounted for by greater participation from the middle-ranking groups in society; there has been a slight reduction in the proportion of students drawn from the upper class groups but they remain over-represented by a factor of about 6; the lowest groups remain constantly under-represented. Only in technical education (TAFE streams 1 to 5) is there a reasonably accurate reflection of the social spectrum of Australian society.

It could be argued that this stability of the social composition of higher education students is not really cause for pessimism about education as a force for social change. We tend to assume that if arrangements and structures in society do not change it is because nothing has happened; we tend to assume, in other words, that changelessness rather than change is the natural state of society, and that in human affairs as in the physical world a thing will remain at rest unless acted upon by a definite force. But since society consists of human interaction, perhaps it is better regarded as essentially active, containing in itself the seeds of endless change. If we believe culture, freedom and social justice to be fragile things which can be retained only with constant vigilance and effort, then even maintaining a very imperfect status quo can be regarded as something of an achievement: at least we have not slipped back.

Despite all the innovations and reforms which have taken place in higher education in recent decades there is little evidence of it having helped to bring about a more equitable distribution of wealth and status. True, but before we rush on to the conclusion that education is useless as an agency for social reform it may be wise to reflect upon how much worse the present may have been if all those educational reforms and innovations had not taken place. We might also consider whether the apparent lack of results is evidence of the pointlessness of reform and innovations or of the fact that the reforms and innovations to date have not been radical enough.

At the same time it could be argued that, sociologically speaking, the stability in the social make-up of higher education in a period of rapid social, economic and technological change is not surprising if we consider the organisational and social factors which limit social equality. To function at all any democracy—and particularly democracy in a society as complex as those in modern industrial states—needs some organisational structure. Even the most democratic of societies structure themselves according to hierarchies of power and privilege, and privilege, in one form or another, tends to be passed on from generation to generation. Power, wealth and prestige are characteristics which differentiate social groups and which cut across divisions of religion, ethnicity and locality. Education has become the chief means which citizens see for enhancing the life chances, if not of themselves, then of their children and through them moving up the social ladder. Nevertheless, the competition for places at the top is constrained by environmental influences which affect educational attainment. Children from poor families, where there are neither the physical resources for good study nor the moral support to do well, are likely to turn in poor results and to leave school early. When positive discrimination is introduced, say in the form of scholarships, or expansion of educational resources in deprived regions, those already well up in the hierarchy redouble their efforts to retain their children's advantage. In Australia the dual public/private school system is a mechanism which aids this process. As public schools become more populous and for this or for any other reason their relative attractiveness declines, ambitious parents who can afford the fees transfer their children to private schools which have a tradition of preparing students for higher education.

A potentially countervailing force to those which help sustain a socially elite system is size. Fred Hirsch (1976), in his account of the social limits to growth, has pointed out that as long as any desirable social commodity remains in short supply its attractiveness is maintained, but when the same commodity becomes widely available its value diminishes; thus when one per cent or even ten per cent of the population have a degree it maintains its scarcity value; but as greater numbers acquire degrees, scarcity value diminishes.

It is possible that the decline during the last four or five years—from near 54 per cent to around 42 per cent—in the number of young people transferring more or less directly from secondary school to higher education is a manifestation of the social limit thesis. It seems more likely, however, that the current decline in demand either is a temporary turbulence caused by employment anxieties or is simply due to reduced availability of financial support. What seems to be happening is that a number of bright school leavers (mostly male), who in earlier times would have proceeded to university or college, now take available jobs rather than risk not finding work after graduating. Their behaviour is a mis-reading of a labour market which still operates very much in favour of graduates. They comprise a pool of potential mature-age entrants for the later 1980s.

The 'no-change' observation can, however, be overstated. First, it should be noted that the methodology used to measure social composition is a crude one. The common yardstick, social class, is measured by occupation, education and parents' income. These indicators are intercorrelated positively, but far from perfectly, and there will be some exceptions: students from upper status occupational backgrounds who are poor and vice versa. Furthermore, the attempt to measure change has a built-in assumption that either the structure of society remains constant over the period of measurement or that it has shifted in a regular and known fashion. These are dubious assumptions. Over time the proportions in various occupational categories do shift—for example, the white collar groups have increased and rural occupations have decreased; but more important is the fact that the nature of occupations changes so that it is of dubious validity to use the same

classification to measure change across a long period of time, even if allowance has been made for quantitative shift. What was the equivalent classification of 'computer programmer' in 1950? There are also measurement difficulties when income is used to measure change. One is that the statements by students of parental income are probably the most unreliable of all the three indicators, others are inflation and the dramatic increase in the number of income-earning married women. Such difficulties complicate the task of comparing student backgrounds over different periods.

'Years of education' is probably the most reliable social indicator but the level of education of the population is increasing and comparisons of different periods, if they are to be valid, must take this into account. Few do.

These methodological problems are not sufficient to invalidate the general conclusion that young people from families towards the top of the social scale—whether the measure is wealth, occupational prestige or educational attainment—remain more likely to attend university or college than young people from families lower down.

The problem of crude measures was highlighted in the recent discussion over the effects of fee abolition from 1974. Analysis of the social composition of the student body before and after the change revealed no discernible difference in the social spectrum of higher education. Nevertheless this does not permit the conclusion that the removal of fees did not enable poor students to enrol who otherwise would have been deterred; if there were such students—and commonsense suggests that there must have been—either they were not sufficiently numerous to show up in statistical aggregates, or their poverty was not revealed by the questions directed at parental status, etc. When asked a direct question about the effect fees would have had on their enrolment 20 per cent of the full-time students said that they would have had to enrol either part-time or not at all. Although the answers of interested parties cannot be taken at face value there was an internal consistency in the responses of different groups. Those already under-represented in higher education—women, country dwellers, poor students, older students, and students from lower social class families—were much more likely to report that their enrolment would have had to be reduced. It is a testament to the way social science research is used to legitimate conclusions reached on other grounds that, in the political debate on the possible re-introduction of fees, the proponents of fee re-introduction used the report to justify a conclusion that the elimination of fees had had no effect on who gets to higher education.

It is quite likely that the abolition of fees and the introduction of the Tertiary Education Allowance Scheme has helped counter a social regression due to the elimination during the 1970s of State Education Departments' teachers studentships which were responsible for bringing to higher education groups who had always been under-represented: poorer students, girls and country residents. At their peak the studentship schemes supported over 50,000 students in higher education, providing them with a salary and free tuition. No one knows where the equivalent young people of 1982 are; the decline in recruitment to school teaching and the relatively meagre allowances now available must have deterred many from entering higher education.

While the broad social spectrum appears not to have altered there are other very large changes which mirror events in society. The most significant is that the sex ratio in universities, which in 1950 was about 1 female to every 3 males, changed slowly in favour of females at about half of one per cent a year through the 1950s and early 1960s but accelerated during the 1970s so that now at entry the sex balance is 50/50 and seems likely to tip in favour of women. A similar shift has taken place in secondary school where more girls than boys now remain to year 12. Behind these statistics is a fundamental change

in social attitudes; it now being generally accepted that women's life roles extend to higher education and the professions. They remain, however, a minority in post-graduate studies and in the more prestigious occupations of law, medicine, engineering and management.

While a smaller proportion of young people are enrolling now than a decade earlier there has been an increase in the number of older students. At the present time almost one-quarter of students in universities and colleges, and more than one-quarter in TAFE, are aged 30 or over. These students include some who are catching up on opportunities not taken up earlier in life; compared with the younger students they tend to be from poorer backgrounds; they are, however, insufficiently numerous as yet to make a significant dent on the social spectrum.

Other changes have also been recorded in earlier chapters. Migrants generally are participating in higher education at least at the expected level, although there are significant variations and southern Europeans remain under-represented. One particular minority group, Aborigines, includes very few graduates at all and unlike the minority groups of European origin, few Aboriginal people even get to the starting gate for university or college studies. Their early drop-out from school is a consequence of a combination of desperately poor material circumstances, a position of minimal influence in the dominant society, and a cultural tradition in which there has never been a place for that competitive ambition which is necessary for conventional academic achievement.

The general conclusion, that over the years there has not been much change in the social spectrum of higher education considered as a whole, applies also to its parts. Students from upper status families continue to concentrate in law and medicine, in full-time rather than part-time studies, and in universities rather than colleges. The reasons are to be found in family and school influences and in costs associated with being a student. Aspirational levels of teenagers tend to be constrained by a sense of the social distance between their vocational ambition and their parents' occupational status. Thus professions which are of intermediate prestige such as science, teaching, accountancy and the paramedical services are likely to be the career choices of students who will be the first of their generation to enter the professions. School reinforces family values so that, for example in public schools, teachers, themselves unlikely to be from upper professional backgrounds, are prone to influence their students towards those careers with which they are familiar. Furthermore poorer students are likely to have to earn as well as learn and hence engage in part-time studies which limits their choice of studies and of careers.

The proportion of part-time students, always high in Australia, seems to act as something of an economic barometer. It was high in the pre-war years but declined steadily in the prosperous post-war era until the 1961 recession when the trend was reversed for a short time. The downward trend has again been arrested after the mid-1970s, reflecting again a change in the economic conditions. In difficult times people of university or college potential are inclined to opt for the job-at-hand rather than risk three or four years out of the labour force. Some keep their cake and eat it by studying part-time while working full-time.

As a result of the foregoing analysis what can be said to the policy-maker who wishes to know how opportunities for higher education can be distributed more equally throughout the community? In response, two general observations must be made before considering particular options. One is that the competitive nature of society is such that acts of positive discrimination in favour of the poor will be resisted by those who are well-placed if their position is threatened. Second, if environmental conditions are equalised by bringing the circumstances of the disadvantaged up to the point where educational attainment at school is not impaired, then the social competition for entry is intensified.

These two conclusions hold while higher education remains a scarce and valued commodity. Real change can only occur if, at the same time as improving the lot of the handicapped so as to get more of them to the starting-gate, there is also a corresponding addition to the capacity of the system and remedial measures lead to greater participation by the assisted groups. The scarcity value of the degree or diploma, however, is not independent of the size of the system and this becomes a complicating factor; as the number of graduates increases the social attraction of higher education is likely to decline and hence the competition will become less intense due to scarcity value as well as to there being more places.

Obviously there is more to it than the Hirschian effect, otherwise how do we explain the high rate of voluntary participation in countries like the USA? Nevertheless at this point policy-makers must make some value judgments and then call for more research analysis. If they want greater participation by lower SES groups how far are they prepared to expand the system? The researcher might then be asked what is the lower intellectual limit for satisfactory participation. If the answer is, say, an IQ of 110 then one-quarter of the population would be eligible. Since, however, IQ is not an accurate predictor of academic performance the researcher might base an argument, as the UK Robbins Report (1963) did, on the assumption that basic intellectual capacity is distributed evenly across social groups. The upper limit of the population that can participate satisfactorily in higher education is then at least the highest participation of any social group. On this reasoning we could put the upper participation rate in universities and colleges at double the present one of around 22 per cent of each generation.

The policy-maker might also wish to consider the social as well as the individual value of higher education: what is the economic pay-off from investment in education, what is the social benefit of, say doubling participation? Even the simpler of these questions will not fully yield to empirical research and the policy-maker will be left to intuition and value preferences.

Reference back to the model which showed the antecedent conditions for entry to higher education (chapter 1) provides a framework within which policy directed to more equitable access can be developed. The foregoing analyses, particularly that in chapter 9 which showed the narrowing of the social spectrum which occurs in the education system before the point of entry to higher education, indicates that the first strategy must be to get more young people to the point where they are qualified. The base must be broadened. This is not the place to argue that a majority of each generation should complete secondary education, or about the means by which this objective could be achieved. Two brief points may be made, however. The first is that Australia is a grossly under-educated society—this is so whether one uses a comparative perspective which would reveal that fewer Australian children complete secondary school than in many other countries of comparable wealth; or whether one considers the extent of knowledge and skills young people now require for a full life in a complex society. Expansion of secondary education is a desirable end in itself quite apart from any objective of democratising post-secondary education. The second point is that expansion of upper secondary education would require new sorts of schools; schools designed for young adults rather than for children. The ACT example of senior colleges is instructive. Compared with the rest of Australia, and allowing for the different social mix in Canberra, almost double the proportion of young people stay on to year 12. The Commonwealth Transition Program, while ostensibly directed towards relieving youth unemployment, could, if there is co-operation between governments and education agencies, be the start of a more positive attitude to completing school by many of the two-thirds of each generation who now leave early.

The next major thrust of policy for broadening the access to higher education must, in the longer run, seek to expand the system. While capacity remains restricted and there is competition for scarce places those well up on the social ladder will continue to win. Providing that there is not an over-reaction by planners to the temporary downturn in demand, and that existing plant is not sold off, Australia is reasonably well placed to cope with the build-up of numbers which is predicted for the late 1980s.

The third main strategy should be to promote alternative tracks into higher education. We have seen that part-time and external studies, and schemes for admission of mature age students, attract persons who are on average a bit more representative of the community than entrants direct from school. Another potential route is via TAFE. Technical education, as we have seen, recruits from across all social groups. There is a major job to be done, however, in removing the man-made barriers which prevent students moving between technical and higher education. The separation is embedded in the history of class-linked attitudes to manual and intellectual training. There is also the simple point that technical education is available in hundreds of locations across the country where higher education is remote. If these locations become places where students could be linked to higher education courses, and if technical qualifications were recognised for the purpose of admission by universities and colleges, then a significant new path to higher education would have been established.

When the structural considerations—an enlarged base, an enlarged system, and flexibility across sectors—have been attended to it then becomes appropriate to turn to motivational factors. With more students qualified for higher education, either through completing school or through TAFE, financial assistance will become even more significant than it is now. The effect of the abolition of fees will become increasingly apparent as representatives of new groups get to the point where higher education is possible. Fees, however, are only a small part of the cost of being a student.

In recent years assistance available to students has declined significantly. In a study of student finances Gruen *et al.* (1981) observe that financial assistance for students has declined since the mid 1970s. Teacher traineeships, which provided the main path into higher education for students from poorer families, have disappeared and at the same time the parental means test on eligibility for a tertiary allowance has become more stringent. Between 1974 and 1979 the proportion of full-time students not on any scheme of assistance has doubled. This shift to a situation where students are financially dependent on their own resources or their parents' has 'led to a relative decrease in full-time university and CAE students from less privileged backgrounds' (Gruen *et al.*, 1981: 15). Other evidence of the substantial amount by which the maximum Tertiary Education Assistance Allowance falls short of the cost of living is reported by Hayden (1981: 60).

The recent shift to part-time studies and the apparent slackening demand for entry to higher education may be economic barometers; more importantly for policy, these changes reflect the fact that costs of being a full-time student are greater than many of the already qualified people are able or prepared to pay.

The final point to be made in this sketch of the strategy for increasing access to higher education is that some resources should be targeted towards particularly vulnerable groups. Excessive positive discrimination will provoke a countervailing response from those who feel their advantaged position may be threatened. There are nevertheless examples where the circumstances of particular groups are so excessively handicapping that special assistance would and does receive general support. Aboriginal Australians are one clear example. Already the handful of Aboriginal graduates are providing leadership for their people, but programs to assist more Aborigines through secondary school and

into post-secondary studies need to be maintained, monitored and developed. Research has pinpointed other groups which require particular attention such as certain classes of migrants, poor country residents and, in relation to certain TAFE studies, girls.

We have referred to policy and policy-makers as if there was a unified agency with a capacity for coherent planning. The reality of course is nothing like this. The sketch of the national education system given in the Preface showed that authority for policy development is dispersed between institutions, co-ordinating authorities, state governments and federal government. Within institutions, particularly universities, real power in determining who gets admitted resides with faculties as much as with central authority. The case of medicine illustrates the point. Medical students are, in many respects, more unrepresentative of the community than any other group in the entire post-secondary sector. They are young (aged 17 or 18 at entry), their life experiences have been limited to school and family, they tend to be from select schools and social strata, and educationally their curriculum has been constrained by the necessity to get top marks in the science subjects required for quotas. In terms of intellectual style they are skilled at learning those things that will get them results in the top one or two per cent of the Higher School Certificate examination. Although no one can say precisely what should be the personal qualities of recruits to medicine, there is little disagreement that more is needed than swotting ability to produce doctors with an understanding of the community in which they practise. However, co-ordinating authorities and governments are, with good reason, loath to interfere in the internal affairs of universities.

If there are to be changes in access to privilege a coherent strategy is needed which involves collaboration at all levels of the system: government, co-ordinating agency, institutions and faculty.

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The main question addressed in this book is whether the social composition of higher education has changed since the 1930s and 1940s. Since that time there has been a tremendous expansion in higher education and policies have been developed aimed at increasing participation by the poor. The answer to the question appears to be that the social profile of higher education is remarkably constant over time; the authors point out, however, that the abolition of tuition fees after 1974 and the introduction of student allowances probably helped counter a regression to a more elite composition caused by the withdrawal of other assistance, particularly education studentships. Nevertheless the authors conclude that access to higher education remains mainly limited to the privileged.

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